CENTRAL PATENTS INDEX CLASSIFIED ALERTING BULLETIN

Section D:

FOOD
DETERGENTS

Rochdale House
128 Theobalds Road
London WC1X 8RP England

WEEK D05
18 MARCH 81
05689D - 07780D

ABSTRACTS

INDEXES

II - PATENTEE

V - BASIC NUMBER

VII - PATENT NUMBER

COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	5 JAN - 13 JAN 81	884,099 - 884,291
-Non Delayed	30 DEC 80	885,116 - 885,242
BRAZIL	6 JAN 81	7,904,120 - 8,003,663
CANADA	23 DEC 80	1,091,851 - 1,092,300
DENMARK	29 DEC 80	7,902,078 - 8,002,280
W.GERMANY		
-OLS	22 JAN 81	2,712,233 - 3,027,346
-DAS	22 JAN 81	1,720,114 - 3,016,982
EUROPE		
-Unexamined	14 JAN 81	22,134 - 22,436
	21 JAN 81	22,437 - 22,762
-Granted	14 JAN 81	0,173 - 9,200
	21 JAN 81	0,230 - 8,562
FINLAND	31 DEC 80	7,900,613 - 8,002,853
FRANCE*	31 OCT 80	2,452,857 - 2,453,583
	(BOPI 5 DEC 80)	
UNITED KINGDOM	28 JAN 81	1,583,321 - 1,583,730
		2,052,231 - 2,052,930
ITALY	20 NOV 80	1,048,001 - 1,048,500
JAPAN		
-Unexamined		48,096,617 - 54,111,516
	21 NOV - 28 NOV 80	55,149,601 - 55,152,781
-Examined	6 JAN - 7 JAN 81	81,000,001 - 81,000,400
NETHERLANDS	30 DEC 80 - 7 JAN 81	7,904,922 - 8,020,102
NORWAY	29 DEC 80	7,901,752 - 8,003,386
RES.DISCLOSURE	JANUARY 81	201,001 - 201,053
SWEDEN	5 JAN 81	7,904,573 - 8,006,480
SOVIET UNION		239,916 - 738,507
UNITED STATES		
-Reissues	13 JAN 81	Re30,475 - Re30,482
-Patents	13 JAN 81	4,244,057 - 4,245,356
SOUTH AFRICA**	DECEMBER 80	7,900,007 - 8,005,292

*Printed patents actually published late November - early December, 1980

**Includes numbered Basics from Week C47

Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abtract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany, Sweden and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

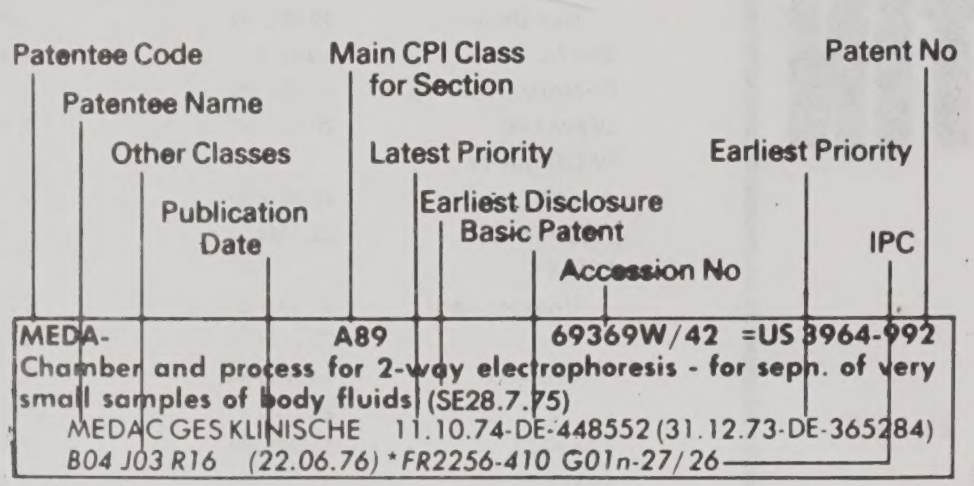
CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry
AE	Polymer & General Chemistry
A+	Polymer Applns.
B	Pharmaceuticals
C	Agricultural Chemistry
D	Food, Disinfectants, Detergents
E	General Chemistry
E+	General Chemistry Applns.
F	Textiles, Paper, Cellulose
G	Printing, Coating, Photographic Chemistry
H	Petroleum
J	Chemical Engineering
K	Nucleonics, Explosives, Protection
L	Refractories, Ceramics
M	Metallurgy

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.



Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.

D1: FOOD; FERMENTATION

D11 : BAKING

★ D11 D/05 ★BR 7904-190
flour toaster
MADIA IND COM 04.07.79-BR-004190
.81) A21d-06

★ D11 05896 D/05 ★DE 2929-496
-surfaced wafer prodn. - by baking dough contg. wheat and r in waffle iron heated to different surface temps. (PT 19.6.80)
RERO OHG 20.07.79-DE-929496
1.81) A21d-13/08
as 929496 (25pp2-0)
having a smooth, dense surface and a cellular internal re, are made by (1) prepg. a dough, (2) applying measured out uantities on waffle irons, having at least one smooth surface, n temp. difference between the lower and upper waffle irons deg.C and the cooler waffle iron temp. is at least 150 deg.C baking this dough in waffle iron for 2.5-3 min. to wafer ss 2.5-3 mm.
h prepn. comprises (i) introducing spice, baking powder and ner into water and stirring while adding soya flour. (ii) flour ble milk powder are distributed in the aq. soln. obtd. in (i). Wt. ater:flour is 1.6:1. (iii) Plant oil and an oil-emulsifier are Emulsifier proportion is 4-8 wt.% w.r.t. oil wt. (iv) The . obtd. is beaten, pref. for 10 min. in a mixer.
vafers are used as filled sandwich wafers consisting of 2 or wafer layers. The wafers combine good organoleptic ies, appearance and strength.

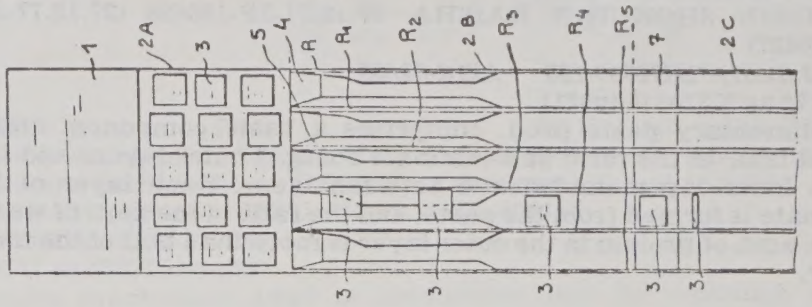
★ D11 06192 D/05 ★EP --22-602
tray for proofer - has sagging carrier cloth moved ittently around frame to stop lumps sticking
NIER BV 13.07.79-NL-005494
(21.01.81) A21c-13/02 B65g-17/32
) as 200679 (10pp1358) (E) US1036183 FR2032344 US1656890 SE DE FR GB IT)
h tray for a proofer can be coupled to a drive chain and has d walls connected by a frame on which an endless cloth strip is d with one section receiving dough lumps and sagging between ame members, a positive drive moving the cloth over the so that lumps can be turned as they pass through the proofer n be prevented from adhering to the cloth without the need for ing with flour.

/ ★ D11 06297 D/05 ★FR 2453-030
tions for cakes, confectionery etc. - produced by filling ations of a stencil on a plastic support with chocolate, icing

UDIGNAC J 04.04.79-FR-008437
(05.12.80) A21d-13/08 A23g-03/28 B44c-01
9 as 008437 (6pp448)
ess of decorating the surface of a cake, pastry' easter egg, or ood prod. with a design or motif applied in icing, paste or ate etc.
ck, stencil plate is laid upon a smooth sheet of plastic. The cutouts are filled in with icing etc. After the icing has set, the plate is lifted away from the plastic sheet. The gaps in the are filled in with icing of a different colour or perhaps ate.
the filling has hardened, the complete decoration can be nd its upper surface fixed to a cake. The visible surface of the tion is as smooth as the plastic sheet on which it was made.

2/ ★ D11 06301 D/05 ★FR 2453-094
lanes for rusks between oven and packing station - comprise d longitudinal bars fitted over transfer conveyor
RRIER C 05.04.79-FR-009113
5 *(05.12.80) A21c-15 B65g-47/22*
79 as 009113 (9pp448)
bar forms an aligning barrier. One or both sides of the bar is d from another bar to contain a channeled lane in which rusks djusted and reorientated as they are advanced. The side(s) of r can be at right angles to the conveyor band or at an angle of ation. The angle between the side and the conveyor band can hroughout the length of the bar.
bar(s) can form a helical guide to turn a rusk from lying flat on the conveyor band to standing on edge. The guide bar(s) pref. extend from the discharge end of a rusk oven conveyor to the packing station where a stack of rusks is assembled for wrapping of rusks is assembled for wrapping.

The bars can form an inexpensive, easily-installed, multi-lane conveyor channel between oven and packing station. The rusks are presented neatly for easy stacking ready for wrapping. No danger of untidy piling up of rusks which can waste time and result in loss of prod.



HAAS/ D11 71078 A/40 = GB 1583-334
Cream wafer stacking machine - with contra-rotating spirals raising cream coated wafers against underside of preceding wafer
HAAS F 25.03.77-AT-002098
*(28.01.81) *DE2809-642 A21c-15/02*
21.03.78 as 011177 (10pp1358)
To stack wafer sheets to produce a layered wafer block, an uncoated sheet is fed to a first level in a stacker, then raised, a coated sheet is fed to the first level and is raised to apply it to the uncoated sheet. A number of sheets may be applied in the same manner, and in partic. the prod. is a cream-filled block.

The appts. pref. has a feed band with a contact coater and the stacker has at least two opposed vertical conveyors adjacent to or as an extension of the band, and there may be two or more conveyors side-by-side on both sides of the wafer sheet and formed by contra-rotating helical tracks.

USUP= ★ D11 07168 D/05 ★SU -736-928
Bakery installation for making/up trays and containers - has elevators for full and empty trays, with lifting mechanism to put trays in elevators
UKR SUPPLY MACH CON 26.12.77-SU-563935
(30.05.80) A21c-15
26.12.77 as 563935 (6pp29)
Installation for making up sets of trays and containers for bread articles, so that they can be conveyed and packed, and can be removed automatically from the packing, has means to load the filled and unload the empty trays from the container, with feeding and receiving vertical shelved elevators, with gaps into which the trays can be slid. Construction is simplified and made more compact by fitting equipment to lift the trays into the container. This comprises two flaps each mounted so that it can perform a forwards/backwards movement in both horizontal and vertical planes in front of the corresponding elevator. Hinged to both sides of its top end are frames with racks for holding the trays. The flaps and the frames have the same drive mechanisms.

NELH- ★ D11 07494 D/05 ★US 4244-158
Packaging ice cream blocks with wafers - on heat sealing superposed plastic bands to form separate compartments for blocks and wafers
NELHAM R & ASSOC 13.03.79-US-020078
A92 Q31 (13.01.81) B65b-09/02 B65b-61/18
13.03.79 as 020078 (7pp1358)
Blocks with pairs of wafers are packaged by feeding serially onto a horizontal moving flexible polymer band, engaging with an upper moving band, continuously heat-sealing upper to lower band at the longitudinal edges to form peanent seals and between the edges to form longitudinally peelable seams, and intermittently sealing the bands to form closely-spaced transverse pairs of peelable seals.

The layers are severed between the closely spaced seals to form individual packages each with permanent side seals, peelable end seals and additional peelable seal from one end to the other to divide the package into compartments. On opening from one end, a single compartment is formed without otherwise damaging the remainder of the package.

GROU/ D11 71654 C/41 #US 4244-460
Removing biscuit stacks from multiple infeed conveyors - and advancing along a common output track
GROUNDWATER F M 05.09.78-CA-310633 (31.08.78-US-938536)
*+Q35 (13.01.81) *CA1085-678 +B65g-47/26*
31.08.78 as 938536 (12pp1376)
Appts. for producing a row of stacked thin biscuits from rows consists of a stack former for sepg. a number of biscuits from an advancing row, a mechanism to transfer each sepd. stack into carriers, and a device to merge the stacks in the carriers into a single row.
The mechanism is formed by slats into the sides of the former which engage the stack at its bottom edge. Each carrier has a pair of blocks which include fingers to hold the front and rear of the stack. Stacks are ready for packaging.

NISP D11 49447 B/27 = US 4244-974
Noodle dough paste - in sandwich layers with differing specified starch and albumin content
NISSIN SHOKUHIN KAISHA 27.12.77-JP-160628 (27.12.77-JP-160627)
*(13.01.81) *DE2856-195 +A21d-02/08*
27.12.78 as 973703 (5pp931)
An alimentary paste prod. comprises a basic component contg. wheat flour in the form of a laminate contg. 2 outer layers and 1 or more inner layer sandwiched between them. Each layer of the laminate is formed from the paste, and the ratio of the amt. of starch to the amt. of protein in the outer layer is more than that of the inner layer.
Pref. a simple inner layer is sandwiched between 2 out and the inner layer is enriched with protein w.r.t. the ou which is enriched with starch.
The prod. is esp. used in pre-cooked or instant-cookin type long noodles, which may be mass-produced without b cutting.

MERI D11 88070 A/49 = U
Yeast fermentable dough contg. soft wheat flour - or clear alkali calcium alginate, esp. for doughnuts
MERCK & CO INC (DCAF) 10.05.77-US-795476
*(13.01.81) *DE2820-172 A21d-02/18*
10.05.77 as 795476 (3pp931)
A yeast-raised dough compsn. contains a soft wheat flou 100wt.% or less w.r.t. the total flour or a clear flour in amt. 7 less.
The flours have a pH reduced to 6.0 or less, and the contains 0.20-1.00 parts of alkali metal calcium alginate (sodium salt) per 100 parts of the soft wheat/clear flour. compsn. may comprise a flour content of 0-60wt.% hard 100wt.% bleached soft wheat flour, and 0-70wt.% bleach flour, the bleach flour pref. having a pH of 4.5-5.8.
The dough compsn. is esp. used for breads, sweet dou yeast-raised doughnuts to ensure adequate gas retent structure forming properties, yielding a proper vol. an quality in the prod.

See Also
D13 J5 5150868

D12: MEAT; FISH PROCESSING

RIJP/ ★ D12 05692 D/05 ★BE -884-120
Prodn. of rehydratable meat prod. from pork rind - by steeping, defatting and drying
RIJPKEMA J M 02.07.79-NL-005147
(05.01.81) A23b-04/04 A23j A23l-01/31
02.07.80 as 884120 (10pp367)
Prodn. of a dehydrated meat prod. is carried out by (a) steeping comminuted pork-rind at 35-80 deg. C for 1-3 hrs; (b) removing the sepd. fat; (c) isolating solids from the resulting suspension, opt. after sieving the suspension; and (d) drying the solids, opt. after washing with water at the same temp. as the steeping liq.
The prod. can be used in meat-based foodstuffs (e.g. pies or sausages), dry soup mixes, etc., or as a seasoning powder. It has good resistance to microbiological spoilage and rehydrates rapidly on contact with water. (FL)

SCHR- ★ D12 05845 D/05 ★DE 2926-496
Food drying and smoking plant - with separate air conditioning circuit through water spray condenser and smoke generator
ERICH SCHROTER OHG 30.06.79-DE-926496
(22.01.81) A23b-04/04
30.06.79 as 926496 (13pp39)
A plant for drying and smoking of food, such as meat and sausages, consists of a treatment chamber which is separated by a wall from an air conditioning chamber. Ducts through the wall form a closed circuit.
The air conditioning chamber includes a spray water condenser which the air from the treatment chamber passes in a descending direction. Spray nozzles near the top cool the air and the water bath at the bottom is fitted with a cooler and a heater. A smoke generator can be joined to the outlet from the condenser.
This is a compact space-saving plant with all components well accessible.

KOLL/ ★ D12 05850 D/05 ★DE 2926-543
Sausage skin concertina closure - by machine with square shaft end twisting skin into braid and pushing it inside open end
KOLLROSS G 30.06.79-DE-926543
Q31 (22.01.81) A22c-13/02 B65b
30.06.79 as 926543 (25pp39)
Concertinas of long sausage skin which have been gathered for pushing over the filler tubes of sausage stuffing machines must be closed at the open end before filling begins. This is done by pushing a square shaft end into an open end and by revolving it after the shaft has been withdrawn a short distance. This forms a twisted braid which is continued until the shaft is withdrawn and a plunger inside its bore pushes the braid inside the skin end.
Machine performs the operations automatically, producing a perfect seal without any risk of damage to the sausage skin.

KOLL/ ★ D12 05853 D/05 ★DE
Heating ready-to-use food wrapping - after water and or absorption but before storage to improve biological stability
KOLLROSS G 30.06.79-DE-926590
(22.01.81) A22c-13
30.06.79 as 926590 (8pp200)
The prodn. of natural and/or regenerated cellulose food wi which can be stored in a ready-to-fill condition and contain s water and/or glycerol to allow direct processing after comprises heating after water and/or glycerol content ab but before storage in a sterile pack.
Heating can take place by high frequency energy. In a embodiment, over-pressure is applied to increase temps. C wrappings, contg. no internal or external lacquer coati heated in a germ-impermeable foil pack which is herm sealed only after the air in the wrapping is displaced emerging vapours.
Process applicn. to glycerol-free wrappings, e.g. sausag contg. 5-100% water, is claimed. The wrappings can be without risk of damage by fungi, spores and bacteria. E consumption in sterilising can be reduced, e.g. by 25%.

ALEX- D12 00319 D/01 = E
Meat cutter and mixer - with thyristorised speed control f blade shaft
ALEXANDERWERK AG 04.07.79-DE-926975
*X25 P41 +P62 (14.01.81) *DS2926-975 +B26d-05/08*
13.06.80 as 103307 (9pp39) (G) CH-184865 US4099111 GB156 530628 DS2355192 E(AT BE CH DE FR GB IT LI NL SE)
A machine to cut up and mix lumps of meat and similar consists of a bowl, shaped like half a toroid which is rotat electric motor driving a vertical shaft. A lid covers the b shields a revolving horizontal shaft with a set of cutter blad end. This shaft is driven through a V-belt by a d.c. shunt mo a thyristorized chopper control for forward, reverse, brak speed control..
This is a simpler drive than hydrostatic transmissi eliminates the high inrush starting currents of pole c motors.

MAYR/ ★ D12 06178 D/05 ★EP
Sausage skin applicator - for filler tubes using V/belt pull resilient lining
MAYR A 13.07.79-DE-928428
(21.01.81) A22c-13/02
11.07.80 as 104003 (11pp39) (G) DE2123732 US2604657 U US1492697 US2498948 US1761189 US3049749 US2231954 E(BE FR GB IT LI NL SE)
An appliance to push hanks of sausage skin on the filler t

uffing machines uses a V-belt pulley which is lined on the ks with a resilient layer of foam rubber or foam plastics. h in the clear and the angles of the flanks are designed to e periphery of the filler tube just below the horizontal ne..
liance obviates the conventional operation of transferring to a mandrel and the risk of double folds.

D12 64600 Y/36 = GB 1583-463
sausage casing with valved movable horn - which is into casing and then shut off before retraction
N CARBIDE CORP 17.09.76-US-724255
*(28.01.81) *US4044-425 A22c-11/02*
s 038684 (12pp977)
r stuffing flowable viscous prod. into a casing comprises a horn having an inlet end for receiving the prod. from a sed supply and a discharge end. The horn concentrically a casing.
are constraining means around the stuffing horn to tension in the casing, and a prod. stoppering means in the apted to reciprocate between a first site and a second site prod. discharge is prevented. The stoppering means es a plunger adapted to seat within and project outward discharge end. The trailing end of a stuffed casing adjacent uffed compacted prod. is provided with a prod.-free closure

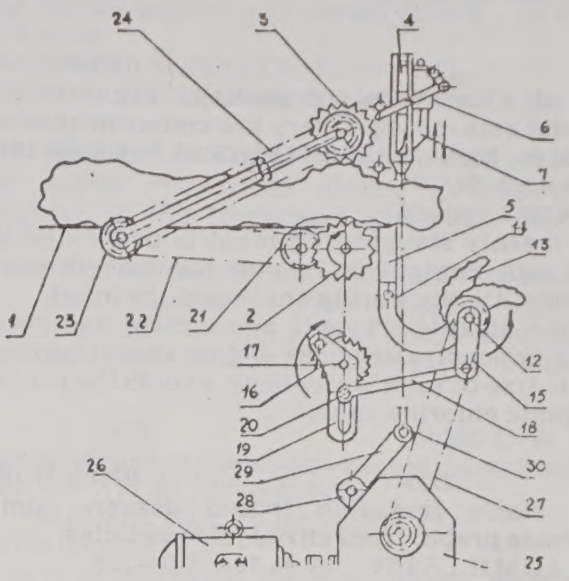
is used for producing sausages.

D12 36719 A/21 = GB 1583-674
metal block cutting machine - with support plate over thrust for temporary block deposition
URIT G RITTERSHA 05.11.76-DE-650690 (14.09.76-DE-29)
*(28.01.81) *DE2650-690 + B02c-19/20 B02c-23/02*
as 030240 (10pp1358)
ine for cutting a frozen meat block has a pusher for sliding a ong a guide surface to a cutter, a receiving platform spaced e cutter but adjacent the surface and on which a block is before pushing, and a support moving with the pusher and on block is held while the pusher returns and before the block s the guide surface.
utter is pref. a rotatable drum with knife blades mounted on ace, or is a bar extending transversely and reciprocable in ing direction, with a block stop beyond the bar. The pusher is erated by a fluid cylinder drive.

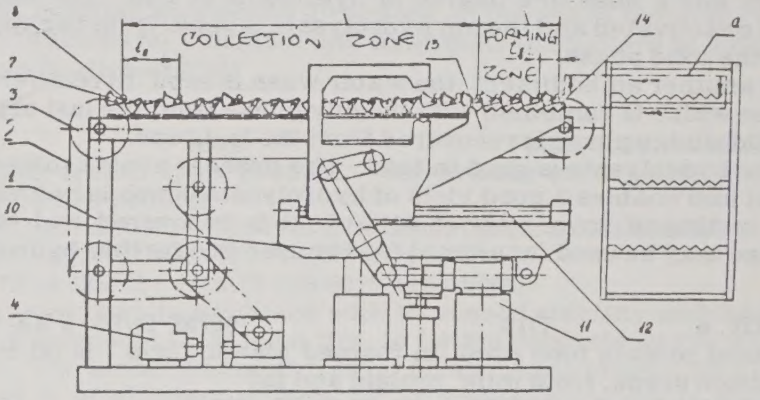
D12 53857 A/30 = GB 1583-721
ook for refrigerator trucks - with curved surfaces in two on hook bracket legs
DA A 17.01.77-NL-000442
*21 Q35 Q61 (28.01.81) *DE2801-745 + F16b-45*
as 001655 (6pp1358)
ension unit for an animal carcass includes a horizontal g rail for mounting in a vehicle or building and having two t flanges projecting from one end of a web, and a hook d to a C-shaped member movable along the rail and with legs each other and supported symmetrically by the flanges.
support surfaces of the flanges form acute angles with the nd the support surfaces of the legs are convexly curved l to the rail as are the leg free ends, these ends co-operating trically with the web surface. The member is pref. of metal tics, e.g. nylon covered with PTFE, and the acute angle is 80

D12 D/05 ★IT 1048-376
tic sausage skin prodn.
INE SOC PROD CIVILE 01.12.59-FR-010256
11.80) A23l

= ★ D12 07169 D/05 ★SU -736-930
ieces cutter - has vertical movable, and horizontal stationary to make strips, and sickle-shaped knife to produce pieces
T MEAT DAIRY IND 16.12.77-SU-559394
05.80) A22c-17
7 as 559394 (5pp29)
ment for cutting meat into pieces has receiving table, ally-moving knife, stationary horizontal knife, and means to e strips into pieces. Loss is reduced and pieces of a ermined size are made, by fitting a horizontal meat feeder in ne of the receiving table, and having upper and lower toothed . There is also a vertical feed for the strips of meat after , which moves together with the vertical knife. The meat cutter has rotating blade and stationary counter-blade at ngles to the plane of the table. These two blades are sickle- and the vertical knife can move both vertically and horizontally.



TEKH = ★ D12 07170 D/05 ★SU -736-931
Transfer mechanism for fish treatment support rods - using endless chains and guides with out of balance cams rotating on spindles
TEKHRYBPROM MFG 12.12.77-SU-553775
(05.06.80) A22c-25/08
12.12.77 as 553775 (4pp29)
Transfer mechanism used in production lines for smoking, sun-curing, or drying, comprises conveyor in the form of endless bush-roller chains with guides, and mechanism to lay the rods in place. To ensure the formation of sets of rods with fish, and load them directly into the hollows of the housing, the guides are provided with out-of-balance cams, rotatable on spindles. The distance between the cam spindles is less than that between the hollows in the housing. Each cam comprises a plate with figured profile and counterweight, plus supports fitted at the points where the rods are laid, to hold them in place.



FARE = ★ D12 07171 D/05 ★SU -736-932
Fish filleting machine tools control appts. - has lever deflected by weight of fish, and inclination angle converted to electrical signal and compared with standard
FAR E POLY 01.02.78-SU-576994 (01.02.78-SU-576363)
T06 X25 (05.06.80) A22c-25/14
01.02.78 as 576363 (6pp840)
Appts. for control of the working parts of a fish-dressing machine contains a fish parameter sensor, trigger, OR-gate and an actuator control system. For greater accuracy and to improve the dressing operation, a switchable analog memory and comparator are introduced along with additional comparators and conveyor travel sensor. Thus variations of the coordinates of the body of the fish are tracked. Bul.20/30.5.80.

TOKA- D12 58943 X/31 = SU -738-494
Concentrated protein food materials - mfd. from flesh of marine animals
TOKAI FISHERIES RES (TOKF) 16.12.74-JP-144219
*(05.06.80) *J51070-846 A23l-01/32 + A23j-03*
15.12.75 as 301594 (4pp)
Method for prepg. protein food matls. which have the water holding property and the texture suitable for cooking and processing, from flesh of marine animals, in which either(1) the flesh is adjusted to pH 4.0-5.0, defatted and dehydrated by contacting with a cooled hydrophilic organic solvent; or(2) edible salt is added to the flesh, adjusted to pH 4.0-5.0, then defatted and dehydrated by contacting with a cooled hydrophilic organic solvent; or(3) the process as(2) except that the flesh is adjusted to pH 6.5-7.7.
By adjusting pH of the flesh and adding salt, food matls. of concd. protein, which have the texture suitable for various cooking and

processing, can be obtd. Objective food matls. are also storage over long periods.Bul.20/30.5.80.

BART/ ★ D12 07704 D/05 ★US 4244-978
Prevention of attachment of spoilage organisms to meat - by treatment with soln. contg. a very low concn. of chlorine di:oxide
BARTA K S 20.08.79-US-067682 (13.10.78-US-951194)
(13.01.81) A23b-04/08
20.08.79 as 067682 (6pp955)
Spoilage of freshly slaughtered meat is prevented by washing the meat with a soln. contg. 0.04-1.0 ppm chlorine dioxide, and applying the soln. intermittently during chilling of the meat.

The chlorine dioxide prevents attachment and growth of spoilage microbes at concentrations far below those normally considered bactericidal. Use of such low concns. avoids the prodn. of detectable amts. of organic chlorine cpds.

GENM ★ D12 07705 D/05 ★US 4244-981
Non dairy static freezable frozen dessert compsn. - contg. comestible base prepd. from citrus juice vesicles
GENERAL MILLS INC 31.05.79-US-044798
(13.01.81) A23g-09/02
31.05.79 as 044798 (11pp955)

The compsn. has a moisture content of 45-55wt.% and 4wt.% acid stable whipping agent, 0.05-0.5 vol.% polysaccharide gum, 1-15wt.% edible triglyceride oil, a of a comestible base. e base is prepd. by blending 25-65w juice vesicles contg. 89-96% moisture, 7-45wt.% carbohydrate sweetener, 1-5wt.% ungelatinised starc water and suff edible non-volatile acid or its sodium salt final pH of 2.5-5.5, to give a mixt. of Brookfield viscosit cp at 190 deg. F, and contg. 0.1-0.4% soluble pectin. The cooked at 180-280 deg. F to give a prod. of Brookfield vis 10,000 cp at 190 deg. F, and moisture content 30-60wt.%.

The compsn. can be static frozen, to give a desse spoonable at freezer temps. and resistant to heat shock waste prod. of citrus juice mfr.

D13: OTHER FOODSTUFFS

NOVO ★ D13 05721 D/05 ★BE -884-224
Soya protein hydrolysate from fat contg. soya material - by acid washing, sepn. and enzyme hydrolysis
NOVO INDUSTRI A/S 11.07.79-GB-024177
(08.01.81) A23j
08.07.80 as 884224 (30pp597)
The process comprises first washing the material in an aq. medium at pH 3.5-5.5. The partially de-fatted solid is then hydrolysed at a relatively constant pH with a proteolytic enzyme in the presence of water and a base to a degree of hydrolysis of 1-20. The enzyme is then deactivated and the aq. hydrolysate is sepd. from the oily phase and the solid phase.

In another embodiment, the water wash is sepd. to recover an oily phase which is combined with the oily phase from the last sepn., and a solid sludge phase is recovered from the last sepn.

The hydrolysate is used in food. The process avoids solvent extn. of fat and enables a good yield of hydrolysate which is neither bitter nor tasting of soya. About 60% of oil is recovered and the solid sludge may be used for animal food or used in a further hydrolysis.

FRRR ★ D13 05753 D/05 ★BE -885-153
Sugared protein food prod. in foamed plastic form - is oil in water emulsion prepd. from milk, protein and fat
FERRERO P & CIA SPA 11.09.79-IT-068798
(31.12.80) A23l
09.09.80 as 885153 (22pp597)
The prod. of pH 6.2-7.5 is prepd. by (a) preparing an oil-in-water emulsion at 55-65 deg. C using 55-75% of an aq. phase comprising at least 70% conc. sugared partly skimmed milk and 25-45% of an oily phase contg. at least 98% fats, the milk having a viscosity of 2,000-6,000 cps. at 20 deg. C with a viscosity variation after heating to 80 deg. and cooling to 40 deg. of not above 1,500 cps. esp. 600 cps, the protein is entirely casein and lactoprotein; water is added such that the emulsion contains 17-35% water and the protein/water ratio is 12-26%.

The emulsion is pasteurised at 90-110 deg. for 18 secs., then seeded with 0.015-1% lactose microcrystals at 45-55 deg. and foamed by mixing with inert gas; and then is cooled to not above 20 deg. by mechanical beating to provide the crystallisation of at least part of the fat followed by packing.

The prod. can range from a creamy to a solid block consistency. It has a stable structure and can be kept for long periods.

NPOG- ★ D13 05766 D/05 ★BE -885-203
Continuous coagulation of milk to form curds - used in soft cheese mfr., by pasteurising, biological maturation, thickening and coagulating
NPO GOVEDOVADSTVO 13.09.79-BG-044851
(31.12.80) A23c
12.09.80 as 885203 (10pp597)
The process comprises pasteurisation, inoculation, and biological maturation of the milk followed by addn. of rennet or other coagulating agent. After pasteurisation, the milk is thickened, inoculated with 0.2-2% cheese ferment with 0.2-5 secs. mixing, and matured at pH 5.6-6.2. It is then mixed in 0.2-5 secs. with a 50% CaCl2 soln. at 20-30 ml/100 l of milk of 12% solid content and with 20-30 ml/100 l milk of a cheese ferment of activity 1:10000.

The process enables a 5-10 fold redn. in the time re transformation and thickening of the curds; also it enables the enzyme action and the coagulation period and of th agent used and the Ca content.

MEST- ★ D13 05771 D/05 ★B
Treating washed and peeled potatoes - by bi:sulphite t vacuum packing in plastic sachets, then pasteurising
MESTER SYSTEMES 18.09.79-FR-023860
(31.12.80) A23b
15.09.80 as 885232 (9pp257)
The treatment in aq. sodium metabisulphate is at 80-90 deg mins.; the packing under vacuum in plastic sachets is at deg.C and finally the pasteurisation is at 80-85 deg.C for 5 Throughout the treatment the temp. does not fall below 40 d

Compared with previous processes, the above is sim cheaper because of the lower temps. employed giving rea potatoes which are stable to storage for several months.

COKE ★ D13 D/05 ★B
Extraction of anthocyanin colour from natural products
COCA-COLA CO 08.06.79-JP-071143
E24 (05.01.81) C09b-61

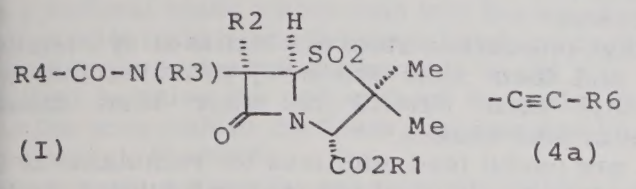
KREU- ★ D13 05798 D/05 ★D
Chocolate paste pre-crystallisation - in cooled cylin revolving spirally ribbed rotor
KREUTER & CO KG 20.06.79-DE-924841
(22.01.81) A23g-01 C11b-15
20.06.79 as 924841 (10pp39)
A fatty cpd., esp. a chocolate paste, is pre-crystallised by c a cooling surface, e.g. a jacketed cylinder through which flows. The crystals are removed from this surface by a high shearing stress in a thin film of not over 2 mm thickn mm). The stress is pref. applied periodically, e.g. for fo paste through the narrow gap between the inside wall of the and spiral ribs on a revolving rotor.

Design combines a good quality of pre-crystallisatio simple construction.

FARB ★ D13 05840 D/05 ★D
Antibacterial and beta-lactamase inhibitor penicillanic aci which are 6-alkoxy or N-acyl or N-alkyl 6 acylamino-pe acid 1,1-di:oxide derivs., used as food additives
BAYER AG 27.06.79-DE-925963
B02 C02 (D22) (22.01.81) A23k-01/17 A61k-31/43 C07d-499/
27.06.79 as 925963 (36pp280)
New 6- or N-substd. 6-acylamino-penicillanic acid S,S-dioxid are cpds. of formula (I) and their pharmaceutically accepta (where R1 is H or an ester-forming residue; R2 is H or opt alkoxy and R3 is H, -COR4, -SO2-alkyl, -SO2-aryl or opt alkyl, provided that R2 and R3 are not both H; R4 is H, opt alkyl, alkenyl, cycloalkyl, cycloalkadienyl or alkoxy, aralkoxy, aryl, aryloxy, heterocyclyl, -CX-R5, (4a) or -N(R7

pt. substd. alkyl, alkoxy, cycloalkyl, cycloalkenyl, dienyl or alkenyl, aryloxy, aryl, aralkyl or heterocyclyl; pt. substd. alkyl, or aryl; R7 and R8 are H, opt. substd. enyl, aralkyl, heterocyclyl, cycloalkyl, cycloalkenyl or dienyl, or aryl, or N(R7)(R8) is a 5- to 7-membered heterocycle opt. interrupted by further heteroatoms; X is or -C(R10)(R11)-; R9 is OH, opt. substd. alkoxy, -N(R7)(R8) cyclyl; and R10 and R11 are H, opt. substd. alkyl, aryl, lyl or carboxy or analogous functional deriv.).

mbine low toxicity with antimicrobial (antibacterial) and can be used in chemotherapy as oral or parenteral rials, as preservatives, and as feed additives. (I) have beta-e inhibiting activity which is higher than that of known 1,1-dioxides, and may be used in combination with other obials, e.g. penicillins.



(I) (4a)

★ D13 05960 D/05 ★DE 3024-356

g milk-derived whey protein gelling point - by heating aq. given time to increase sulphydryl gp. content (NL 6.1.81)

RESS DAIRY LTD 03.07.79-GB-023104

1.81) A23c-21 A23j-03/02

as 024356 (12pp200)

lling temp. of milk-derived whey protein is lowered by an aq. whey protein soln. contg. 0.5-10 (3-5) wt./vol % protein 0 (pref. 70-90) deg.C to increase the reactive sulphohydryl gp. The time for keeping the proteins at the higher temp. and . pH are adjusted so as to prevent protein pptn., gelling and tion at the increased temp. The soln. is then cooled.

rocess takes place esp. at soln. pH 7.5-9 (8) and protein concn. l %. The soln. is pref. kept at 70-90 deg.C, e.g. for 30 secs. at C to 30 min. at 70 deg.C, and proportional intermediate esp. 5 to 3 min. at 75-85 deg.C.

protein uses in foods can be widened. By varying ters concn., temp. and time, prods. can be obtd. gelling at 25-, and having consistent gelling temp. and gel strength.

D13 59765 T/38 = DS 2164-912

polysaccharide bodies prodn - by gelling from solns without using alkali(ne) earth hydroxide/carbonate dissolutio

EDA CHEMICAL IND KK 29.12.70-JP-128940

*1.81) *DE2164-912 C08l-05*

as 164912 (9pp068)

charides' partic. those obtd. from microorganisms such as cteria, are shaped into portions by a process during which p. is no higher than 60 deg.C. The polysaccharides, which jelly at a concn. of at least 1% (wt./vol.) and consist chiefly of -glucose units are dissolved in a soln. to contain up to 10% 1.) of the polysaccharide and which contains in addn.NaOH, a(OH)2, ammonium-, potassium-, calcium-, sodium- or -thiocyanate, CaCl2, trisodium phosphate or ZnC12 as solvent e amt. of solvent aid in the soln. is reduced by diffusion e.g. by , or neutralisation and the jellied polysaccharide made into uired form.

rod. may be used as a foodstuff.(DS)

D13 61490 U/41 = DS 2221-277

acid/lactic acid condensate prodn - by partly neutralising acid with alkali(ne earth)cpd and reacting with f

NAMIT NOBEL AG 29.04.72-DE-221277

*(22.01.81) *BE-798-812 C07c-69/22*

2 as 221277 (3pp068)

nsn. prods. of lactic acid and 10-22C fatty acids are produced in the OH of the lactic acid is esterified with the fatty acid and OH of the lactic acid is either in salt form or esterified with r lactic acid gps., the end carboxyl gp. being in salt form. An ln. contg. 10-70% lactic acid is partly neutralised at 20-100 with 0.3-1 equivs. per mole fatty acid of alkali(ne earth) ide, oxide, carbonate or bicarbonate as a solid, powder or ed in water. The lactic acid is then condensed with fatty acid 220 deg.C while distilling off the water formed.

prod. is free from undesirable inorganic residues which would t its use in the food sector.(DS)

CORP D13 05835 V/04 = DS 2231-198

Use of natural lipides occuring in cereal starch - as emulsifiers for food-stuffs or fodder

MAIZENA GMBH 26.06.72-DE-231198

*C03 (22.01.81) *DE2231-198 A23k-01 A23l-01 + A21d-02/32 A23g-01*

6..6..2 as 31198 6pp913)

Emulsifiers for food and feedstuff are unpurified starch lipids obtd. from dry or moist conversion slurry formed during starch hydrolysis process in the treatment of cereals starch with acid and/or enzymes.

The lipids are e.g. extracted using alcohol (butanol)-water mixt. They increase the viscosity of starch pastes, and improve the consistency and texture of dough prods., soups, sauces etc, and also improve the freeze-thaw stability of starch-contg. binders.(DS)

UNIL D13 66585 U/44 = DS 2318-763

Alphahydroxymonocarboxylic acids - cheese flavouring agents

UNILEVER NV 14.04.72-GB-017430

*E14 (E17) (22.01.81) *NL7305-105 A23l-01/22*

13.04.73 as 318763 (3pp068)

Aroma is given to or increased for fresh cheese, pasteurised cheese and processed cheese by addn. of (a) alpha-hydroxy-butyric, -isovaleric or -isocaproic acid, pref. in an amt. of 150-1000 mg/kg cheese, (b) lactic acid, succinic acid, diacetyl and/or acetaldehyde and pref. also (c) glycine. (DS)

NIDP- D13 69753 U/46 = DS 2321-638

Discharge system - for powder moulded confectionery

NID PTY LTD (NID) 28.04.72-AU-008773

*(22.01.81) *NL7305-989 A23g-03/02*

28.04.73 as 321638 (13pp39)

Machine to remove sweets from their mould boxes and blast off the powder turns the mould boxes so that their covers lie flush with the conveyor belt. A pushing conveyor moves the mould boxes along from the turning section at a speed which coincides with the conveyor belt speed. The powder blowing attachment has at least one blast nozzle which rotates around an axis at right angles to the plane of the conveyor belt. The prefd. arrangement consists of two nozzles, pointing in opposite directions, at the end of revolving tubes.

This requires no vibration and maintains the pattern in which the sweets are aligned.(DS)

UNIL D13 74980 U/49 = DS 2325-133

Whipped cream type product - comprising oil-in-water emulsion with globular protein

UNILEVER NV 30.04.73-GB-020459 (18.05.72-GB-023339)

*(22.01.81) *NL7306-716 + A23l-01/19*

17.05.73 as 325133 (+ 8.5.73-GB-021939) (-pp068)

Aq. oil emulsion is produced with increased stability and which on heating increases by at least 70% to form a prod. similar to whipped cream. The emulsion comprises (a) an aq. phase of pH 4.2-5.5 contg. 0.5-4 wt.% of globular protein, (b) an emulsifier which is glycerine lactopalmitate or a partial fatty acid ester of glycerine or propylene glycol in an amt. of 0.3-2 wt.% (based on the oil emulsion), (c) a fat in an amt. of 3-50 wt.% (based on the oil emulsion) and opt. (d) 3-20 wt.% of a mono- and/or di-saccharide. The globular protein comprises milk protein consisting of beta-lactoglobulin, alpha-lactoalbumin and serum albumin; blood serum protein consisting of over 80% blood serum albumin; egg protein consisting chiefly of ovalbumin, conalbumin and ovumucoid (J.Sci. Fd. Agri. 17 (1966) pp.101-111) soya milk protein or protein from wheat germ. (DS)

SANY D13 38027 W/23 = DS 2455-884

7-Beta-Acylamino-7 alpha-methoxy-cephalosporins - prepd e.g. by N-acylation of N-deacyl cpds.

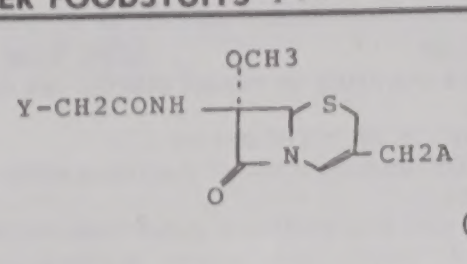
SANKYO KK 12.08.74-JP-092131 (26.11.73-JP-132441)

*B02 C02 (22.01.81) *DE2455-884 C07d-501/57*

26.11.74 as 455884 (+ 26.11.73,18.12.73,12.8.74 -JP-132442,142097,092129) (13pp913)

New 7-alpha methoxy cephalosporin derivs. (I) and their non-toxic, salts, are used in human and veterinary medicine (animals and poultry) to combat Gram positive and negative bacteria. They are also used as animal feed supplements. In the formula, A is carbamoyloxy or (1-methyl-1H-tetrazol-5-yl)-thio; and Y is cyanomethylthio, 1-cyano-ethylthio, 2-hydroxyethylthio, (m)ethyl-sulphonyl, 2-cyanoethylsulphonyl or sydnon-3-yl. Specific (I) is 7 beta-cyanomethylthioacetamido 7-alpha-methoxy 3-(1-methyl-1H-tetrazol-5-yl) thiomethyl 3-cephem-4-carboxylic acid.

Pref. (I) are prepd. by reacting the corresp. amine (having protected carboxyl gp.) with a carboxylic acid YCH2COOH or its reactive deriv. and then cleaving the protecting gp., or if A is methyl-tetrazolyl-thio by reacting a cpd. (I) (where A is carbamoyloxy or acetoxy) with 5-mercapto 1-methyl-1H-tetrazole or its alkali metal salt.(DS)

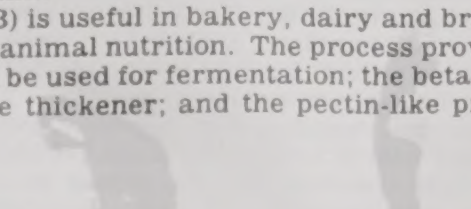


(I)

FARB D13 18396 B/10 =EP G000-947
Tri:hydroxy-piperidine derivs. - useful as glucosidase inhibitors for treating diabetes etc. and as animal feed additives
BAYER AG 24.12.77-DE-758025 (27.08.77-DE-738717)
*B03 C02 (14.01.81) *EP-----947 A23k-01/16 A23l-01/30 A61k-31/70 C07d-211/46 C07d-403/12 C07d-405/06 C07d-498/04 C07h-15/12*
25.08.78 as 000947 (48pp) (G) No-Citns. E(BE CH DE FR GB LU NL SE)
3,4,5-Trihydroxypiperidine derivs. of formula (I) and their nontoxic salts and bioprecursors are new. In (I), R1 is H or an opt. substd. opt. satd. aliphatic hydrocarbon group; R2 is H, OR', SR', NR'R, COOR', CH2OH, CH2NR'R'' R'CONRCH2, R'SO2NRCH2, R'NHCONHCH2, R'NHC(:S)NHCH2, R'OCONHCH2, SO3H, CN or CONR'R; and R3 is H or defined as R1, in which R' and R are each H, an opt. substd. (un)satd. aliphatic gp. or an opt. substd. aromatic or heterocyclic ring; such that R1 is not H is (a) R2 is H or OH and R3 is CH2OH, (b) R2 is H, OH, SO3H, CN or CH2NH2 and R3 is H, or (c) R2 is OH and R3 is CH2NH2. Prefd. cpds. are N-(n-heptyl)- and N-methyl-l-deoxynojirmycin.

Prepn. of (I) comprises cyclisation of suitable 5-aminoglucose derivs; or condensn. of corresp. ketones or aldehydes in the presence of a hydrogen donor, or N-alkylation of the parent cpd. (I, R1:H).

Cpds. (I) are used for the treatment of adiposity, diabetes and/or hyperlipaemia; and as additives for animal fodders.



(I)

PROC ★ D13 06075 D/05 ★EP --22-361
Dehydrated aminoacid food additive - comprises matrix of aminoacid material and soluble co-crystalliser
PROCTER & GAMBLE CO 05.07.79-US-055224
C03 E19 (14.01.81) A23j-03 A23l-01/30 A23l-02/26
04.07.80 as 302268 (27pp1248) (E) BE-728426 CH-538818 FR2380743 US3878305 US3697287 US3689641 GB1391291 E(BE UE FR GB IT NL)
Dehydrated amino acid food additive comprises a uniform co-crystalline matrix of (a) an amino acid material (I) and (b) a soluble edible co-crystalliser material (II)..

The additive is better-tasting, more stable and less hygroscopic than (I) alone. It is useful for fortifying foodstuffs which are deficient in nutritionally related amino acids. The additive is esp. useful in fortifying peanut butter spread.

UYMO- ★ D13 06205 D/05 ★EP --22-619
Processing waxy barley to protein prods. - and high maltose syrup, useful in human or animal nutrition
MONTANA STATE UNIV 12.06.79-US-047855
C03 (D16) (21.01.81) A23j-01/12 C12p-19/22 C13k-07
09.06.80 as 301928 (35pp1251) (E) US3115410 US4154623 US4125528 4.Jnl.Ref E(AT BE CH DE FR GB IT LI LU NL SE)
Prodn. of protein prods. (A) and maltose-contg. syrup (B) from starch obtd. from waxy barley comprises first heating a starch slurry with a starch-converting enzyme at 76 deg. C to dissolve the starch. The mixt. is cooled, more enzyme added, and then stirred until the starch is converted. It is then heated to complete conversion and solids (A) sepd. from liq. (B).

Pref. the starting slurry is made by treating waxy barley flour with water, adding enzyme to give a workable viscosity and (partial) hydrolysis of 2,2,4-trichloro- 1,1,1-trifluorohexane milling, then remthe beta-glucans. The mixt. is then sepd. into a starch slurry and protein solids. Pref. the grain used contains at least 92% amylopectin..

Syrup (B) is useful in bakery, dairy and brewery prods. and (A) in human or animal nutrition. The process provides a mill water prod. which can be used for fermentation; the beta-glucans are useful as a low-calorie thickener; and the pectin-like prod. is useful in bread-making.

BEEC ★ D13 06209 D/05 ★
Haloalkyl-substd. aminoethanol derivs. - esp. useful promoters for ruminants
BEECHAM GROUP LTD 07.09.79-GB-031147 (10 024025)
B05 C03 (21.01.81) A61k-31/13 C07c-91/06 C07d-295/08
19.06.80 as 302066 (24pp914) (E) NO-CITNS. E(AT BE CH D IT LI NL SE)
The use of 2-aminoethanol derivs. of formula (I) and their s treatment of the human or animal body is new.

R1R2N-CH2-CHOH-R3 (I)

(R1 is 1-6C alkyl or 5-7C cycloalkyl;
R2 is H or 1-6C alkyl;
or NR1R2 is a 5-to 7-membered heterocyclic ring having hetero-atom; and
R3 is 1-4C alkyl, one carbon atom of which is di- or tri-haloge

Cpds. (I) and their salts are new, provided that whe trichloromethyl then NR1R2 is other than dimeth diethylamino or piperidino..

The cpds. are useful feed additives for ruminants as the growth promoters by virtue of reduced or inhibited methan and enhanced propionate prodn. Amt. added is 1-1000 ppm b the feedstuff.

INRG ★ D13 06239 D/05 ★EP
Alpha-lactalbumin enriched food supplement - prepc lactoserum by two ultrafiltrations to retain desired fraction milk substitute and in therapeutic nutrition
INST NAT RECH AGRON 26.06.79-FR-016482
B04 C03 (21.01.81) A23c-09/14 A23j-01/20 A61k-37/02
24.06.80 as 400945 (34pp395) (F) FR2125137 FR2239208 2.Jnl.R CH DE FR GB IT LI LU NL SE)
Ultrafiltration of lactoserum to give a product enriched i lactalbumin is effected by a distillation..

ultrafiltration using known membranes having a separa above 5000 which allows retention of lactoserum proteins (i.e. proteins). This first ultrafiltration is effected on crude lact haVing pH of at least 6.3. The ultrafiltrate from t ultrafiltration is submitted to a second ultrafiltration membrane capable of retaining alpha-lactalbumin, pref. h cut of less than 5000, esp. 1500-2000. Tbe retained alpha-lacta is recovered..

The prod. is a milk product gives (I) free of 5-methyl-2-ch complement uhuman and animal foods. It may be added to imitate mothers milk or give foods rich in 1,1,1- trifluoroh diene and other undein therapeutic nutrition.

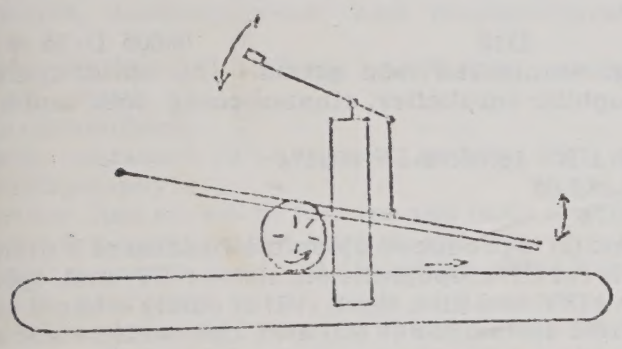
FROM ★ D13 06279 D/05 ★FR
Ultrafiltered milk prods. used in cheese mfr. - treated before ultrafiltration to remove calcium by ion exchange
FROMAGERIES BEL-LA VACHE 06.04.79-FR-008851
(05.12.80) A23c-19/05
06.04.79 as 008851 (10pp597)
Prepn. of milk based dairy prods., retentates or other materials coagulable by rennet treatment to make cheese, ultrafiltration process, comprises passing the milk ultrafiltration, or the other coagulable protein materials ultrafiltration or the ultrafiltered retentate, through a exchanger to eliminate or partially reduce the Ca content.

The process enables a finer and more homogeneous chee that normally obtd. using ultrafiltered retentate.

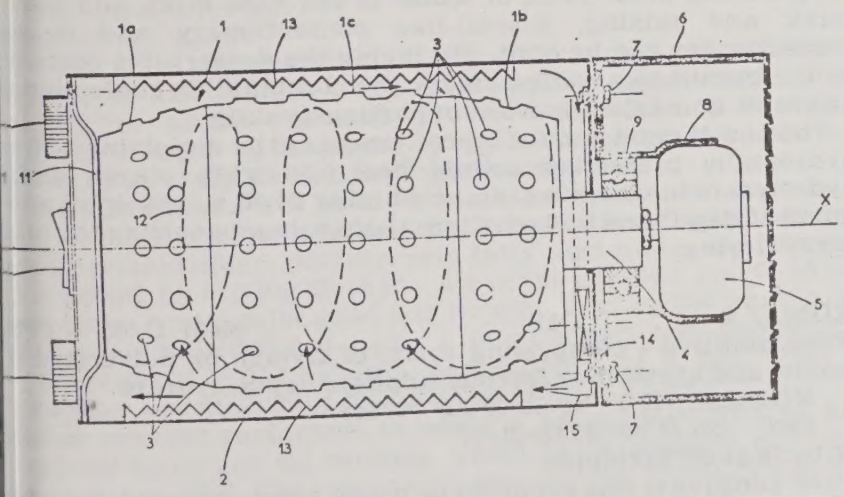
FROM ★ D13 06280 D/05 ★FR
Isolation of proteins from lactoserum - by passage through a of ion exchange columns
FROMAGERIES BEL-LA VACHE 04.04.79-FR-008555
C03 (05.12.80) A23c-09 A23c-19 A23j-01/20 A23j-03 A23k-01/
04.04.79 as 008555 (12pp520)
Animal proteins esp. lactoproteins are isolated from material so that they have specific properties, using the tech of exclusion chromatography and ion exchange. The proteic s material undergoes a physico-chemical pretreatment in or increase yield and sepn. The sepn. is effected with the arranged in series and having different resolving power, a protein soln. has a compatible ionic strength and pH. The p sepd. undergo a post-treatment in order to stabilise them improve their useful properties.

Used for feedstuff for humans and animals.

★ D13 06281 D/05 ★FR 2452-883
nd sepn. pf cocoa beans from their pods - using machine uts pod around its equator without damaging bean
TARD B C A 02.04.79-FR-008289
2.80) A23g-01 A23n-04
as 008289 (11pp448)
l halves are screened, e.g. via a horizontal, rotary screening The beans are collected in a receptacle beneath the screen ne pod halves are rejected at the discharge end of the screen. chine comprises a horizontal conveyor band on which each carried with its equator coinciding with a vertical plane l to the direction of motion of the conveyor.
pod is conveyed beneath a pivoted beam which extends dinally above the conveyor and slopes convergently ards in its direction of motion. The underside of the beam is vith a vertical blade which cuts into the equatorial plane of as the pod is rolled along between band and beam.
pivoted beam is loaded downwards to cut into the pod to a sufficient to halve the pod without damaging the bean. The or or the underside of the beam pref. has side flanges to guide in relation to the blade.
pivoted beam makes the machine adjustable for all sizes of ne extracted bean is undamaged. The machine is simple and ct and can be trailer-mounted to collect beans directly from ld on to which cut pods are immediately rejected. Yield is 95%.



-★ D13 06284 D/05 ★FR 2452-906
baking chips in hot air instead of frying - in perforated rotary surrounded by heating elements
IONA 02.04.79-FR-008186
7 X27 P28 (05.12.80) A47j-37/12
9 as 008186 (10pp448)
rocess for baking chips in hot air rather than frying them in oil, king temp. is higher than that used for frying chips in oil. Pref. chips are baked in a heated, rotary drum through which hot blown.
oven pref. comprises a horizontal, cylindrical rotary drum has a perforated shell made of stainless steel or coated with . The interior of the shell is pref. furnished with a helical ying scroll and the drum is driven by a reversible motor. The is then used to drive chips from the loading end of the drum ds the opposite, closed end. With motor reversed the scroll s to discharge baked chips.
d partic. in domestic kitchens, restaurants, etc. Fire hazard of oil is eliminated so expensive fire precautions do not apply. rocess is cleaner and less odorous than frying. A reversible can be loaded and discharged automatically without a hand inserted into the heated zone.



[- D13 23624 A/13 = GB 1583-344
int coffee extract prepn. - in two counterflow low temp. ctors sepd. by brief hydrolysing steam heating (BE 16.3.78)
EJ INT RES CO 18.09.76-GB-038797
*8.01.81) *DE2741-524 + A23f-05/24*
.77 as ------ (9pp945)
acts of ground roasted coffee are obtd. by (a) exhaustive extn. leaching with an aq. solvent at 60-120 deg.C to remove all non-volatile soluble solids; (b) heating for 2-30 mins. at 140-200 deg.C; and (c) exhaustive extn. leaching with water at 60-120 deg.C. The heating Stage (b) is carried out without the soln. obtd. in Stage (c) being returned to step (b).

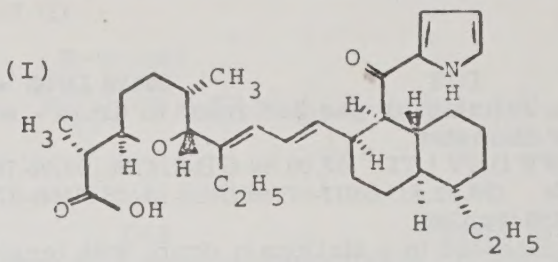
Ground roasted chicory may be mixed with the starting coffee. The solvent for step (a) is suitably water or the soln. obtd. in step (c). The extracts obtd. are used in the mfr. of instant coffee. They are obtd. in high yield, e.g. 45wt.% of dry coffee and 55wt.% of chicory.

UNIL ★ D13 06330 D/05 ★GB 1583-355
Storage stable filled cream concentrate - contg. fat mono:glyceride, sugar, egg, yolk and limited amt. of poly:ol
UNILEVER LTD 15.11.77-GB-047469 (15.06.72-GB-028097)
(28.01.81) A23l-01/19
26.05.78 as ------ (4pp955)
A filled cream concentrate comprises 35-50% fat of dilatation value at least 200 at 20 deg.C, an aqueous phase, 0.1-1.5% alpha monoglycerides, 1-6% egg yolk, at least 0.1 but less than 5% of a polyhydric alcohol, and at least 5% sugar. The upper limit for the sugar is determined by its solubility in the aq. phase, and the total concentration of sugar plus polyol is 1.75 g mol per kg of the aq. phase.

The compsn. has the same advantages as a similar compsn. claimed in GB 1432364, but contains less polyol (up to 5%, c.f. 5-15%). It is pourable after several weeks, microbiologically stable at room temp. for a similar period, and on dilution, can be whipped to a specific vol of 2-3.

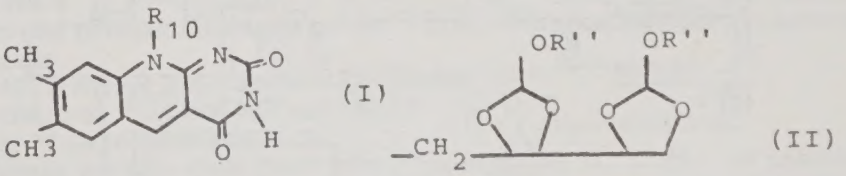
HOFF D13 10289 A/06 = GB 1583-408
Antibiotic obtd. by culturing Streptomyces strain - for use as antibacterial, antihypertensive and feed additive
HOFFMANN-LA ROCHE AG 06.08.76-US-712286
*B03 C02 (D22) (28.01.81) *BE-857-513 A01n-09/22 A61k-31/40 C07d-207/34 C07d-309/06 C07d-405/08 C12d-09*
05.08.77 as 032934 (17pp964)
Antibiotic X-14547 of formula (I), i.e. alpha (R), 5 (S) dimethyl-6(R)- (1-ethyl-4-(4-(R)-(2-pyrrolyl-carbonyl) -1(S)-ethyl-3a(R),4,5(R)7a(R)-tetrahydroindan-5-yl)-(E),3(E)- butadienyl)-tetrahydropyran-2-acetic acid and acceptable salts are new. (I) is mfd. by cultivating streptomyces Sp X-14547 in aq. carbohydrate soln. contg. nitrogenous nutrients and mineral salts.

(I) and salts are active against Gram-positive bacteria have antihypertensive activity, and improve ruminant feed utilisation.



MERI D13 75777 Y/42 = GB 1583-453
(5)-Deazariboflavin and derivs. in anticoccidiosis compsns. - the derivatives being the 5'-phosphate and salts and the 2',3',4',5'-di-o-alkoxymethylene cpds.
MERCK & CO INC 02.11.76-US-737890
*B02 C02 (28.01.81) *US4053-602 C07d-487/04*
13.09.77 as 038176 (8pp964)
Compsn. useful against coccidiosis comprises solid nutritive poultry feed in which there is intimately dispersed 5-deazariboflavin or deriv. of formula (I). In (I), R10 is -CH2-(CHOH)3-CH2OR5 (where R5 is H in -P(O)-(OH)2 or acceptable salt deriv.); or R10 is of formula (II) (where R11 is 1-5C alkyl).

Pref. the compsn. contains 0.1-50 (0.5-25) wt.% of 5-deazariboflavin on (I). Pref. R10 is -CH2-(CHOH)3-CH2OH.



HOFF D13 02120 A/02 = GB 1583-573
Hard caramel prepn. using xylitol - by adding xylitol powder to molten xylitol at its m. pt.
HOFFMANN-LA ROCHE AG 06.07.76-CH-008633
*(28.01.81) *BE-856-474 A23g-03/32*
05.07.77 as 028081 (2pp924)
Xylitol-contg.hard caramels are produced by adding powdered

xylitol to a xylitol melt at a temp. not substantially exceeding the m.pt. of xylitol. Pref. the produced xylitol is added at a temp. of at most 96 deg.C.

Pref. the powdered xylitol is added in an amt. of 10-30(15-25) wt. % based on the total caramel mass. The powdered xylitol has an average particle size of 40-150(60-100) microns. Prior arts problems are avoided and caramels of the required consistency are obtd.

SPIL- ★ D13 06349 D/05 ★GB 1583-644
Pet foods based on textured vegetable protein - infused with enzymatic meat digest and preservatives
SPILLERS LTD 18.08.76-GB-034336
C03 (28.01.81) A23k-01 A23l-01/20
18.08.77 as ------ (11pp367)
Pet food products with a moisture content of 15-50 wt.% comprise textured vegetable protein (TVP) infused with (a) a soln. of enzymatically digested meat, meat offal or meat by-products and (b) a preserving soln.

The preserving soln. pref. contains sugars and polyhydric alcohols (esp. glycerol, sorbitol, mannitol, propylene glycol and/or 1,3-butanediol) in amts. such that the product contains less than 15 wt.% sugar and less than 4 wt.% polyhydric alcohol. The infused product can be coated with a preserved gel (e.g. based on gelatin and glycerol). Its density is pref. less than 0.25 ounce per cubic inch.

Infusion of the TVP improves its palatability to pets and its stability to microbiological spoilage while maintaining the best possible meat-like texture.

MERI ★ D13 06398 D/05 ★GB 2052-542
Prepn. of cellulase free xanthan gum - by addn. of an alkali metal hypochlorite
MERCK & CO INC 04.06.79-US-045151
A11 (D21) (28.01.81) A61k-07/16 C12p-19/04
02.06.80 as 018021 (6pp478)
Xanthan gum (I) free of the enzyme cellulase (II) is prepd. by treatment of the (I) beer with MOCl (where M is alkali metal).

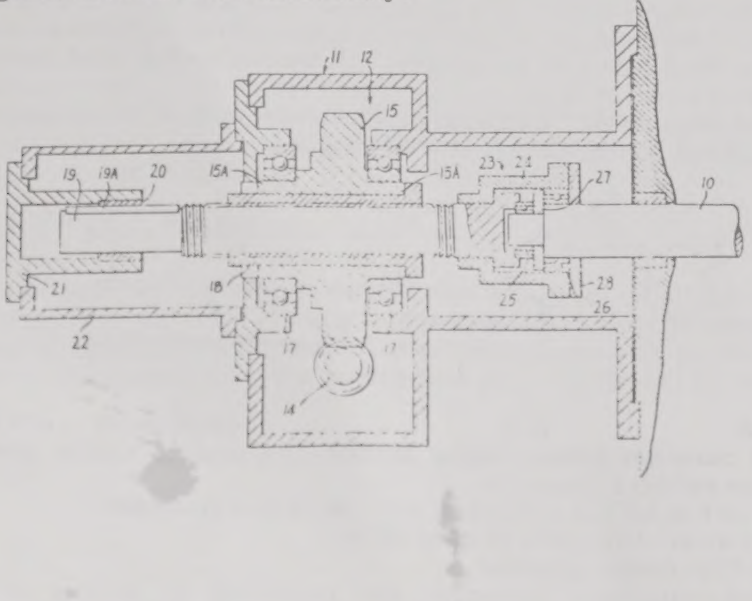
(I) is prepd. by known methods by the fermentation of Xanthomonas campestris NRRL B-1459 (US 3433708, etc.). Beer is adjusted to pH 6-7 (pref. H2SO4 or NaOH), and pref. NaOCl is added (to final concn. 0.08-0.1% w/w). The mixt. is left at 30 + -2 deg.C until MOCl level is less than 0.03% pref. less than 0.02% (e.g. 6-8 hr.). Mixt. is then pref. heated for 2-10 min. at 85-95 deg.

Economic process is simple and reliable, does not require a neutralisation stage, and does not cause rheological changes in (I). Resulting (I) free of (II) is suitable for use in toothpaste or food prepns.

LOWD- ★ D13 06419 D/05 ★GB 2052-675
Raw chocolate refining by paddled rotor in drum - with dynamic control of rotor diameter
LOW & DUFF DEV LTD 02.05.80-GB-014720 (03.05.79-GB-015411)
T06 X25 Q64 (28.01.81) B01f-07/04 B01f-15/06 F16h-37
02.05.80 as 014720 (8pp295)
Chocolate is processed in a stationary drum with longitudinal bars against which the chocolate is refined by longitudinal paddles carried by a rotor. The degree of refining is affected by the spacing between the paddles and bars. This spacing is adjusted by altering the effective diameter of the rotor.

This adjustment takes place by moving a control rod axially within the rotor to operate a toggle mechanism. The rod movement is accomplished by a gearbox which is connected to the rod by a rotary coupling.

The appts. refines chocolate to a controlled degree. The degree of refining is maintained automatically.



LCCO ★ D13 D/05 ★IT
Liquid product gelling at ambient temp. - without chan
chemical and organoleptic characteristics
CORVI LAB BIOCH FARM 22.04.65-IT-008704
(20.11.80) A23l

NISS ★ D13 06604 D/05 ★J
Powdered fat prepn. - by dissolving hydrophilic protectiv
and starch in water, adding fat, emulsifying and drying, fo
custard etc.
NISSHIN FLOUR MILL KK(RIKV) 11.05.79-JP-057710
(25.11.80) A23d-05 A23l-01/04
11.05.79 as 057710 (4pp42)
Powdery fat (I) is prepd. by (1) dissolution of hydrophilic p
colloid (II), and starch (III) or starch- decomposed produc
warm water, so as to adjust the concs. of (II), and (III) or (I
soln. to 2-20 wt.% and 5-50 wt.%, respectively, (2) emulsifi
the soln. after the addn. of 20-60 wt.% of fat (V) of m.pt. 25-
and 5-30 wt.% of one or more of fatty acid diglyceride,
monoglyceride and acetylated monoglyceride, and (3) p
powder after drying the emulsion.

(I) is used for giving gel-forming property or hardening pro
dessert-mix for custard pudding, Bavarian cream, cheese c
A dessert-cake is prepd. by mixing (I) with fruit-juice, wate
etc.

SUNF- ★ D13 06605 D/05 ★J5
Ethanol-contg. emulsified food prodn. - by emulsifying
edible fat, lipophilic emulsifier, ethanol-contg. soln. and hyd
emulsifier
SUN FOOD KK 16.05.79-JP-059174
(25.11.80) A23d-05
16.05.79 as 059174
Emulsified food (I) is produced by emulsification of a (i) mix
liquefied edible fat (III), lipophilic emulsifier (IV) and, opt. o
soluble additive (V), and (ii) a mixt. (VI) of edible ethanol-con
(VII), hydrophilic emulsifier (VIII) and, opt. water-soluble
(IX), in the wt. ratio of (II)/(VI) of 3/97- 90/10.

(III) is vegetable oil such as soy bean oil, rapeseed oil, ri
oil, cotton oil, etc., animal oil or fat such as lard, fish oil, r
etc. (IV) is sucrose fatty acid ester, fatty acid glyceride, pr
glycol fatty acid ester, etc. (V) is oil-soluble pigment,
antioxidant, vitamine, spice, etc.

(I) is a mixed food, in which the antiseptic effect of eth
utilised. By use of (I), the amt. of antiseptic used for prepn.
can be reduced, and the addn. of (I) is effective for tasti
flavouring.

NISS ★ D13 06606 D/05 ★J5
Compsn. for use in confectionery - comprises roasted flour,
protein, sugar and coagulant of calcium salt or phosphate
NISSHIN FLOUR MILL KK 11.05.79-JP-057714
(25.11.80) A21d-10/04 A23g-03 A23l-01/04
11.05.79 as 057714 (5pp5)
Compsn. comprises (a) the base mixt.consisting of 50-9
roasted flour, 5-40 wt.% fat and 0.5-40 wt.% of viscosity-inc
agent and (b) the dessert mixt. consisting of 20-60 wt.% of p
oil and fat, 5-60 wt.% of sugar, 1-40 wt.% of viscosity-inc
agent, 2-40 wt.% milk protein 0.4-4 wt.% of the coagulant co
of calcium salts, phosphates and/or polyphosphates.

By adding milk, juice or water to the base mixt. and the
mixt. and mixing, biscuit-like confectionery and dess
confectionery can be obtd. By laying the dessert-like confec
on the biscuit-like confectionery the combination confection
be prepd. domestically without particular skills.

The powdery oil and fat is pref. prepared by dissolving 2-20
hydrophilic protective colloid and 5-50 wt.% starch and
hydrolysate in warm water, combining 20-60 w/w% of oil ar
mp 25-45 deg.C and 5-30 wt.% emulsifier, homogenising the m
spray-drying.

KOMA/ ★ D13 06607 D/05 ★J5
Feed additive - comprising mixt. of fly-ash or pulverised
zeolite and crystalline ferrous sulphate hepta:hydrate
KOMAKINE T 10.05.79-JP-057348
C03 (25.11.80) A23k-01/17
10.05.79 as 057348 (6pp5)
Feed additive is fine granular or poery substance obtd. by mi
20 pts. wt. flyash (I) or pulverised natural zeolite (II) previous
at ca. 120 deg.C ith 80 pts. wt. crystalline ferrous s
heptahydrate (III) and stirring the mt. at 65-85 deg.C for ca. 3
Crystalline (III) is industrial waste discarded in mfr. of t
white. Though it is a deliquescent substance, by mixing it wi
(II) and drying at 65-85 deg.C for half an hour it is conv
almost nonhygroscopic mixt. consisting of monohydra

drate. (I) and (II) also serve to improve the fluidity of (III).
tive is antiseptic and can be used instead of conventional
fungicide such as pyrimidine. Animals bred with feed contg.
itive, do not suffer from diarrhoea and due to the activity of
n in the feed additive they grow without stress or anaemia.
ment is semi-solid and free of odour caused by formation of
nia. Breeding efficiency is increased.

★ D13 06608 D/05 ★J5 5150-859
ood contg. high iodine content eggs - obtd. by feeding hens
dine-contg. food, gives good fur
PPON NOSAN IND KK 14.05.79-JP-058041
(25.11.80) A23k-01/18
9 as 058041 (3pp5)
ood contains eggs with high iodine content, laid by hens raised
ed contg. an iodine cpd. or iodine. Eggs with an iodine content
) ppm (on dry basis) can be obtained by raising hens with feed
50-2000 ppm iodine. The eggs are combined in the mink food so
e iodine content in the mink feed is 1-15 ppm.
d contg. the eggs, of which iodine content is increased, gives
aising result and good fur. Method may be used when iodine
to the mink food has no effect.

★ D13 06609 D/05 ★J5 5150-861
sn. for improving texture, taste and flavour of food - e.g.
t butter, contains yeast and polysaccharide obtd. from
phyta
KEDA CHEMICAL IND KK 15.05.79-JP-060066
.11.80) A23l-01
79 as 060066 (5pp5)
ompsn. contains 1-99 wt.% yeast and 99-1 wt.% polysaccharide
from Rhodophyta.
compsn. has excellent texture and taste and flavour and can
mbined in peanut butter, various spreads, etc. It has excellent
sifying property and oil-absorbing property and can be
ined in processed meat foods (e.g. sausage, ham, etc.) to
nt cooking loss due to oozing out of oil and fat and preventing
paration of oil and fat during their preservation. It also shows
ent gelling property and gives jelly of excellent elasticity,
e and taste and flavour. It is viscous and can be combined in
s.

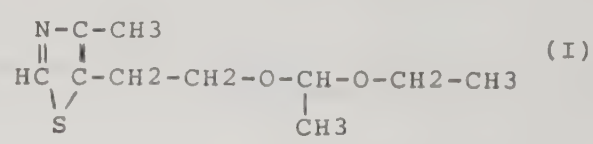
★ D13 06610 D/05 ★J5 5150-868
ring chinese noodles - by adding compsn. prepd. from vitamin
iser
YO SHOKUTEN KK 11.05.79-JP-057926
11) (25.11.80) A23l-01/16
79 as 057926 (2pp5)
d comprises adding colouring compsn. prepd. from vitamin
d crocin in weight proportion of 1:10-2:3; and combining at least
mt. of the sum of vitamin B2 and crocin of the carbohydrate-
iser.
nese noodle can be coloured stably in good colour by
gistic effect.

★ D13 06611 D/05 ★J5 5150-871
tion topping cream prepn. - by emulsifying compsn. contg.
lated mono:glyceride, lecithin and/or hydrophilic surfactant,
d fat and aq. milk soln.
KEN VITAMIN CO LTD 10.05.79-JP-057365
..11.80) A23l-01/19 B01f-17
79 as 057365 (5pp5)
sn. is obtd. by dissolving (a) 0.05-10 w/w% of acetylated
glyceride and (b) 0.05-4 w/w% of lecithin and/or hydrophilic
ctants in edible oil and fat having m.pt. 15-45 deg.C.
sifying compsn. (1) is added to aq. soln. contg. milk solid 1-12
% and mixt. is emulsified homogeneously.
cific surfactants are used in combination, i.e. (a) acetylated
glyceride and (b) lecithin and/or hydrophilic surfactant such as
se fatty acid ester, polyglycerin fatty acid ester, etc. Topping
n is prepd. by mixing 25-55 pts. wt. of the compsn. and 75-45 pts.
aq. soln. contg. milk solid 1-12 w/w%, heating the mixt. to 50-
g.C, pre-emulsifying it using a homomixer, homogenising it
pressure of 30-150 kg/cm2, pasteurising at 70 deg. C for 10
, cooling and maturing in a refrigerator for a night.
using specific surfactant in specific proportions with oil and
mulsifying oil and fat compsn. which gives excellent imitation
g cream is obtd. The topping cream is of low viscosity and has
ent taste equal to fresh cream.

FUJI/ ★ D13 06612 D/05 ★J5 5150-875
Natural conc. colouring prepn. for food use - freeze-crushing citrus fruit rind and with hexane or ethanol
FUJIWARA S 12.05.79-JP-058391
(25.11.80) A23l-01/27
12.05.79 as 058391 (2pp5)
Method comprises (a) freeze-crushing the rind of citrus fruits so that the colorant in the rind of the citrus fruits is well absorbed in the oil cells of the rind, (b) mixing 1 kg of thus obtd. pasty rind and ca. 700 g of hexane or ethanol, (c) extracting the rind with stirring the mixt. for 48 hrs., (d) distilling the liq. extract under vacuum at 71 deg. C by hexane or at 78.3 deg.C by ethanol and (e) collecting the distallate.
Colourant showing natural colour of citrus fruits can be prepd. inexpensively from the rind alone. The colourant can be used not only in various foods, but also in cosmetics, etc. The rind contains a lot of the oil cells, in which the colourant is absorbed and it is essential to break the oil cells to effectively recover the colourant.

YAMA/ ★ D13 06613 D/05 ★J5 5150-876
Taste-improving additive for foods, etc. - comprises brine or opt. diluted brine contg. soluble calcium salt
YAMADA S 10.05.79-JP-057396
(25.11.80) A23l-01/30
10.05.79 as 057396 (8pp5)
The additive is either (a) brine or) aq. cpsn. obtd. by adding soluble calcium salt to brine or diluted brine. Calcium is added in the form of slaked lime so that the calcium content is more than the sum of the anions in the brine.
The additive can be used for improving taste and flavour and enriching minerals of foods, drinks, feedstuffs and medicines. The additive can be also used for enriching minerals in fertiliser.

SNOW ★ D13 06748 D/05 ★J5 5151-577
Thiazole deriv. with milk-like flavour - prepd. by reacting 4-methyl-5-(beta-hydroxyethyl) thiazole with ethyl vinyl ether
SNOW BRAND MILK PRODUCTS 14.05.79-JP-058999
E13 (26.11.80) C07d-277/24
14.05.79 as 058999 (4pp22)
New thiazole cpd. of formula (I) is prepd. by reacting 4-methyl-5-(beta-hydroxyethyl)thiazole with ethyl vinyl ether in the presence of acid at 10-100 deg.C, pref. 20-50 deg.C. Acid is hydrochloric acid, sulphuric acid, phosphoric acid, p-toluene sulphonic acid, etc. Amt. of acid used is 2-10 wt.% relative to the starting thiazole cpd. Amt. of ethyl vinyl ether to be used is 1-5 mole parts/mole part thiazole cpd. After the reaction, the resultant is washed with water and distilled to give the prod. (I).



(I)

NATY D13 34323 X/19 = J8 1000-013
Textuised vegetable proteinaceous flakes - produced by hydration under mechanical press. to eliminate bean-like taste (BE200476)
NABISCO INC 18.10.74-US-516136
*(06.01.81) *DE2547-076 A23j-03*
17.10.75 as 125210 (13pp)
Texturised vegetable proteinaceous prods. are produced by subjecting a wet proteinaceous matl. to mechanical pressure of at least 126 kg/sq.cm to effect vapn. of the moisture and to form a hard, coherent mass; comminutingthe latter; size classifying the particles, hydrating, flaking and drying. The flaky prod. can be re-hydrated instantaneously.
The prod. is dry, light-brown, has good appearance and storage stability; it has high absorption capacity for fats, oils and natural meat juice. The prod. is esp. suitable for use as an extender for meats, or an additive for cereal dishes. (J52003855).

KURS D13 29826 A/16 = J8 1000-015
Fibrous protein-rich food prepn. - from colloidal calcium caseinate micelle
KURARAY KK 23.08.76-JP-100880
*(06.01.81) *J53026-347 A23j-03/02*
23.08.76 as 100880 (5pp42)
Fibrous protein-rich food prepn. comprises (1) prepn. of micelle colloid (II) contg. 0.8-6.0 wt.% of calcium (III) on casein (IV), by addn. of alkali (V) and (III) to (IV) or (IV)-contg. protein mixt., (2) controlling the pH to 5.0-5.5 by addn. of acid (VI) at less than 25 deg. C, (3) sepg. fibril gel (VII) by heating to 45-65 deg.C and (4) solidifying (VII) by addn. of acid (VIII) after or during orientation of (VII) by application of shearing stress.
The retention of (IV) in the product is high and the process is simple and easy. Pref. (II) is calcium caseinate micelle. (III) is calcium chloride or calcium acetate. Examples of (VI) are

hydrochloric acid, sulphuric acid, phosphoric acid, lactic acid, acetic acid and citric acid. (VIII) is as for (VI) or polyphosphoric acid, succinic acid, etc. (J53026347).

ASAF ★ D13 06992 D/05 ★J8 1000-016
Transporting dispersion of rice in water - using pump with two screws having one wing with specific pitch
ASAHI DOW KK 13.03.76-JP-027446
(06.01.81) A23l-01/10
13.03.76 as 027446 (4pp22)
Homogeneous dispersion of rice in water and edible pasting agent is transported using a pump which has two screws having one wing with specific pitch. (J52110844)

KIKK D13 37677 A/21 = J8 1000-017
Mfr. of seasoning from fish prods. - by extracting essence, decomposing residue with enzymes, adding sugar and powdery dry fish and heat treating
KIKKOMAN SHOYU KK 28.09.76-JP-115470
*(06.01.81) *J53041-494 A23l-01/23*
28.09.76 as 115470 (6pp05)
Prepn. of seasoning comprises extracting essence from fish material with hot water, alcohol, etc.; decomposing the residue enzymically; adding sugar and powdery dry fish simultaneously or in turn to the decomposed liq. opt. with heating, and heat-treating it. The seasoning is free of fishy smell. Further 5'-ribonucleotide, etc. in the powdery dry fish and amino acids in the decomposed liquid show a synergistic effect to make the seasoning highly palatable.
The enzymic decompsn. may be effected by inoculating 'koji'-mould such as Aspergillus oryzae, Asp. soya, etc. in the mix. of water and the extn. residue of fish such as fish meal and the decompsn. is effected at above 50 deg.C for 10-20 hours at the absence of salt of or above 25 deg.C for ca. 3 months at the presence of above 7 wt./vol.% of salt. (J53041494).

IDAT/ ★ D13 06993 D/05 ★J8 1000-018
Pale coloured, clear soy sauce prodn. - by heating and drying sake lees, treating with amylase and ageing with addn. of moromi
IDA T 20.08.75-JP-100933
(D16) (06.01.81) A23l-01/23
20.08.75 as 100933 (2pp22)
Sake lees is heated and dried to remove alcoholic component, followed by baking and crushing, and the prod. is contacted with amylase. Prod. is aged with addn. of unrefined soysauce (Moromi) with pale colour. (J5205100)

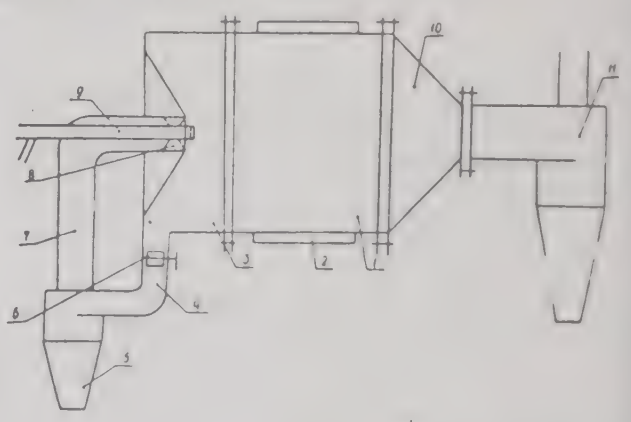
NIVO- ★ D13 07021 D/05 ★NL 7906-735
Reduction of vegetable products to a mash - without water and under vacuum, dispensing with reducing gases
NIVOBA BV 27.06.79-NL-005008
(30.12.80) C13l-01/02
10.09.79 as 006735 (14pp1014)
Agricultural products such as bulbs, roots, fruits, etc. are ground into a fluidised mass by treating them, without the spaces between them being filled with water or other fluid, and in an atmosphere poor in or without oxygen. For pref. the products are ground or grated in a vacuum. Alternatively they may be processed in an atmosphere of an inert gas or of a reducing gas. The gas is drawn off with the ground product, is separated from the mash, and is recirculated to the chamber where the treatment takes place.
To eliminate the inconvenience and the problems of grinding or grating in the presence of a reducing gas such as SO2. The product is not diluted with excess water, and there is no corrosion as occurs with SO2.

ANON ★ D13 07038 D/05 ★RD -201-008
Instant coffee granules of controlled density - made by screening agglomerated coffee particles and adjusting the density of the coarse fraction with metered back addn. of fines
ANONYMOUS 20.12.80-RD-201008
*(10.01.81) A23f-00/**
20.12.80 as ------ (1pp513)
The final density of a powder prod. such as agglomerated instant coffee is controlled by continuously separating a stream of the prod. into a coarse fraction and a fines fraction, and continuously adding back to the coarse fraction a controlled portion of the fines fraction to increase the density of the coarse fraction by a controlled amt.
The process is esp. useful for providing agglomerated instant coffee with a uniform density, which can be packed on high-speed packing machines into glass or other containers using conventional volumetric fillers.

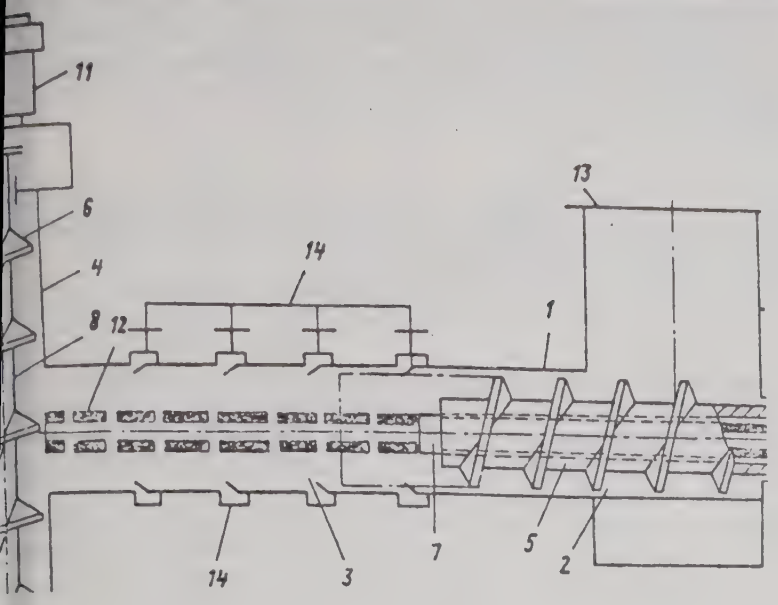
CORP ★ D13 07061 D/05 ★RD
Storage stable soybean curd - contg. dehydrated meats, vegetables to lower water activity
CPC INTERNATIONAL INC 20.12.80-RD-201051
*(10.01.81) A23j-00/**
20.12.80 as ------ (-pp903)
Storage-stable soybean curd prods. are obtd. by mixi dehydrated foods (I) to give final prod. of low moisture conte contg. 65-80% dry substance. (I) is e.g. dehydrated meat, shr fish or vegetables, e.g. peas, beans, carrots, etc.
The amt. of dehydrated food added is sufficient to lower th activity of the curd to below 9.0 to 9.5, pref. 0.65 to 0.8. Th activity is the ratio of the water vapour pressure of the curd t pure water. The dehydrated food is added to the soybean mil pptn. of the curd or to freshly pptd. curd. If acid is used for p acid pH may be stability.

LERE = ★ D13 07153 D/05 ★SU
Soured milk prods. and cheese prodn. - with process control b inner tension in curd monitoring
LENGD REFRIG IND 05.04.78-SU-601417
S03 (28.05.80) G01n-33/04
05.04.78 as 601417 (2pp70)
Accurate control of the milk coagulation upon introducti souring agent is carried out by determining change in th tension in the curd. These measurements are carried out cartridge case provided at one end with a membrane sens inner tension in the curd.
The cartridge case is partly immersed in the curd and the changes are recorded continuously. By this method mfr. of milk products and cheese can be accurately reg Bul.19/25.5.80.

SIDA = ★ D13 07172 D/05 ★SU
Dried milk prodn. appts. - has sprayer for liquid, and tangent for drying air, plus cyclones to separate powder from air
SIBE DAIRY IND RES(DAIR =) 29.12.77-SU-567907
(05.06.80) A23c-01/04
29.12.77 as 567907 (5pp29)
Method and equipment for making dried milk products, with emphasis on the drying process, has the product being s during tangential supply of the drying agent to the drying ch with combined removal of the product and the spent drying and their separation. The process is intensified, by reduc incrustation of the dried milk, by withdrawing the product fr peripheral zone of the drying chamber using a flow which m the opposite direction to the agent used in the process. The spe withdrawn with the dried milk - is returned to the drying ch after the powder has been removed. The drying chamber tangential pipe to admit the air and a sprayer. A cyclone d separating, and this is linked to the drying chamber by a p mounted coaxial to the sprayer. The pipe has a directing made from rotating louvres, fastened to the sprayer and cap movement along its axis.



CHER/ ★ D13 07369 D/05 ★SU
Vegetable feedstock hydrolysis unit - has reciprocating a hollow shaft with draining zone over whole hydrolysis section
CHERNYKH G V 06.04.77-SU-476363
(02.06.80) C13k-01/02
06.04.77 as 476363 (3pp89)
Intensified hydrolysis of vegetable feedstock is due to the ho housing and with the draining part of hollow shaft set along length of the hydrolysis zone. The shaft is connected to ste pipe, and is fixed in the housing to support the rotary reciprocating on it.



-★ D13 07509 D/05 ★US 4244-252
slicer with tangential supply conveyors - with rotating knife onions supported in pockets
NTERT & PELLATON 09.04.79-US-028105
(13.01.81) B26d-04/46
9 as 028105 (7pp295)
on slicer comprises a horizontal plate carrying a slicing knife. ion is positioned in a pocket open at the top and bottom and ed above the plate. The position of the pocket is adjustable e to the plate to control the clearance between them and thus rol the slicing efficiency.
. the onions are delivered tangentially to the plate by a yor. Pref. the onion slices fall through a hole in the plate onto a al conveyor.
adjustable pocket provides optimum slicing efficiency. onally a device prevents the stacking of onions on the yor during their travel to the slicer.

-★ D13 07510 D/05 ★US 4244-286
for salted cheese curd loaf prepn. - with salting of de-wheyed rior to compression
IVERSAL FOODS CO 21.02.78-US-879965
(13.01.81) A01j-25
8 as 879965 (8pp295)
pts. for preparing a cheese curd loaf includes a dewheyer and a ner for receiving the dewheyed mixt. A curd accumulation n has a perforated sidewall and tapers downwardly and rdly at a radial rate of at least 1.3%.
urd level sensor near the top of the column actuates a valved arge from the container to maintain a predetermined level of in the column. Severing and discharge devices at the bottom of olumn include two guillotine valves adapted to release rmly sized cheese curd loaves which are received in hoops d along an underlying conveyor.
apparatus is used to prepare a salted cheese curd loaf for quent pressing, brining and aging. Pref. salt is added to the eyed cheese curd and this reduces the brining time from about days.

D13 15966 A/09 = US 4244-748
a corn starch milk into protein and starch - using multistage and washing using hydrocyclones
C INTERNATIONAL INC 22.10.76-US-734683 (22.01.79-US-5537)
*P41 (D17) (13.01.81) *BE-859-954 C13l-01*
79 as 005537 Div.ex. 4144087 (8pp931)
tein-rich prod. and a starch-rich prod. are obtd. from the mill h fraction of a corn wet milling process. The system uses cyclones arranged in sepn. stages each divided into 2 sepn.
.
e mill starch is fed through the sepn. zones under controlled tions at pH 3.0-6.0 and density 7.5-8.5 deg. Be at 60 deg. F to n the 2 prods. from each sepn. zone.
e protein content of the protein-rich prod. obtd. is 68% IDSB or ., and the starch-rich prod. contains 0.38% IDSB or less of uble protein. Starch-enriched streams discharged from the in-sepn. stages are recycled back to the initial feed.

FARH D13 68433 B/38 = US 4244-776
Potassium sorbate granulation - by spraying aq. potassium sorbate soln. on potassium sorbate particle bed fluidised with hot air
HOECHST AG 11.03.78-DE-810702
*E12 (13.01.81) *EP---4-049 C07c-57/10*
08.03.79 as 018731 (5pp954)
Continuous mfr. of K sorbate comprises contacting an aq. K sorbate soln. with a bed of K sorbate particles fluidised by heated air where the amt. of K sorbate soln. contacted is adjusted so that the fluidised bed is at 40-80 deg. C and the relative humidity of the air leaving the bed does not exceed 20 wt.%, relative to 60 deg. C.
Flowable granular K sorbate is obtd. which consists of solid spherical particles. On handling dust formation does not occur but they can be easily dissolved rapidly in water. After drying is not necessary and (partial) evaporation of the K sorbate soln. is not required. K sorbate is used as a food preservative.

KRFT D13 14763 C/09 = US 4244-971
Prepn. of treated type cheeses - from protein concentrate and fat concentrate
KRAFT INC 19.10.78-US-952813
*(13.01.81) *BE-879-527 A23c-19/02*
19.10.78 as 952813 (8pp931)
Cheese is mfd. by preparing a protein concentrate, a fat concentrate contg. 20% or more fat, proteolysing a portion of milk protein with a protease to an amt. 5-50% of the protein, lipolysing milk fat with a lipase in an amt. 5% or more of fat. A mixed fermentate is formed of the lipolytic and proteolytic prods., a minor amt. of which is blended with the protein- and fat concentrates to form a pre-mix. A cheese starter culture is added to the fermentate or pre-mix, which is then fermented to develop acid and produce a cheese of pH 5.3-4.9. The protein concentrate used comprises less than 50% moisture, and a protein content comprising more than 50% milk protein and an amt. of lactose soluble in the moisture.
The process reduces the amt. of time required to convert raw materials to cheese-type prods. and provides a consistent prod.

KRFT ★ D13 07701 D/05 ★US 4244-972
Parmesan-type hard grating cheese mfr. - in which milled curd is salted and moisture pressed out, shortening curing time
KRAFT INC 06.11.78-US-958053 (16.04.73-US-351442)
(13.01.81) A23c-19/02
06.11.78 as 958053 (+21.06.74,06.06.75,19.01.76, 23.08.76,01.02.78-US-481888,602425,650287,716526,874359) (5pp955)
Curd particles are sepd. from whey, and held under pressure and fermented for 4-20 hrs. at 110-118 deg. F until the pH is 4.8-5.1, and so that fermentable sugars have been metabolised, and the curd particles are allowed to mat. The curd is cooled to 90-105 deg. F, milled, and mixed with suff salt to provide 2.5-3.5wt.% during curing. It is then placed in containers and pressed, and whey is withdrawn, until the moisture content is 28-34%. It is then cured in the containers.
The brining step is eliminated, and as the desired moisture content is established before curing, there is almost no moisture, so the cheese is ready for shredding after only 2-6 months. It can be made in much larger hoops than is the case in the conventional method.

UNIL D13 03861 C/03 = US 4244-973
Detoxified rapeseed protein concentrate prodn. - by autolysis and solvent extraction, for use in foods and feedstuffs
LEVER BROTHERS CO 26.06.78-GB-027852
*C03 (13.01.81) *EP---6-654 +A23j-03*
20.06.79 as 050384 (4pp974)
Detoxified rapeseed protein concentrate is produced by (a) producing a mixt. of rapeseed meal water, myrosinase (at at least the amt. naturally present in the meal) and ascorbic acid (at an amt. at least sufficient to activate the myrosinase); (b) autolysing to hydrolyze the glucosinolates; (c) adding an appropriate proportion of polar organic solvent to obtain a solvent phase in which the water content is low enough to avoid denaturation of protein and high enough to extract toxic components and sugars; (d) extracting the mixt. with the solvent to remove the toxic components and sugars; (e) sepg. the solvent phase contg. the prods. of the hydrolysis to glucosinolates from the residue and (f) drying the prod. Prods. are used in and animal foods.

RICH-★ D13 07702 D/05 ★US 4244-976
Intermediate moisture sugared egg yolk compsn. - is soft and non crystalline at freezer temps.
RICH PRODUCTS CORP 26.03.79-US-023931 (28.01.77-US-763613)
(13.01.81) A23l-01/32
26.03.79 as 023931 C.i.p.4146652,4154863 (+24.01.78, 20.06.78-US-871995,917379) (9pp955)
A sugared egg yolk food prod. contains egg yolks, 15-55% water, sugar in wt. ratio 0.8-2;1 with respect to the water present, and a minor amt. of flavouring. The solutes content is sufficient to reduce

the water activity to 0.8-0.9, the fat content is less than the water content' and at least 50% of the sugar present is dextrose and fructose.

The prod. is non-crystalline at freezer temps. and is spoonable after only 5-10 mins. after return to room temp. It can therefore be used quickly and without thawing in food mfr. Because of the low water activity it is resistant to microbial attack.

RICH-★ D13 07703 D/05 ★US 4244-977
Intermediate moisture microbiologically stable ice cream - is soft and spoonable at freezer temps.
RICH PRODUCTS CORP 26.03.79-US-023973 (28.01.77-US-763613)
(13.01.81) A23g-09
26.03.79 as 023973 C.i.p.4146652,4154863 (+28.01.77, 28.01.78-US-763613,871995) (9pp955)
Ice cream contains 15-55% water, sugar in wt. ratio to water of 0.8-2.0:1, milk solids, a small quantity of flavouring' and fat in an amt. less than the amt. of water. The solutes content is sufficient to reduce the water activity to 0.8-0.9, and at least 50% of the sugar is dextrose plus fructose.

The prod. is microbiologically stable, non-crystalline, and spoonable at freezer temps.

GRAC D13 86653 Y/49 =US 4244-982
Foamed food prodn. esp. from fruit or vegetable puree - by incorporating an albumin at the protein coagulation temp.
GRACE W R CO 05.08.76-CH-010045
*(13.01.81) *BE-857-451 A23l-01/32*
02.03.79 as 016762 (29.07.77 as 820121) (4pp931)
A mousse food prod. comprises a food dispersed in an aerated coagulated albumen, having a spongy, cellular foam structure. The process comprises preparing a puree of the food by maintaining at a temp. more than 60 deg.C: vigorously mixing an albumen proteinaceous substance incorporate air and yield a prod. capable of holding its foam shape; heating to maintain the temp., and incorporating the mix into the puree using non-vigorous mixing for 1-5 mins.

The albumen proteinaceous substance is coagulated during the mixing stage to form the prod. which may be sterilised or pasteurised without changing its aerated low density structure.

PROM- D13 64784 C/37 =US 4244-983
Low calorie imitation cream cheese - contg. milk, fat carrier, dry cottage cheese curd, stabiliser blend, preservatives, flavourings etc.
PRO-MARK COM 06.02.79-US-009466
*(13.01.81) *GB2041-208 A23c-19/02*
06.02.79 as 009466 (4pp931)
A low fat cheese prod. which resembled cream cheese in appearance, texture and taste, is made by admixing milk, a milk fat-contg. carrier contg. 30wt.% or more butterfat, and a stabiliser in proportion to yield a fat content in the prod. of 0.7-2.0wt.%.

The mixt. is heated to 170-185 deg.F for a time to form a uniform homogeneous mixt. and effect pasteurisation. Dry cottage cheese curd is coated by admixing with the mixt., and a curd mixt. is formed comprising 70-85wt.% of the curd and mixt. The curd and mixt. are agitated to form a uniform fluid mixt. while maintained at 90-100 deg.F.

Buttermilk flavour and bacterial culture are added as fl to the agitated curd mixt., which contains salt, an edible lipase modified butterfat prods. as additional flavoura potassium sorbate preservative. Homogenisation of curd 500-5000 psig.

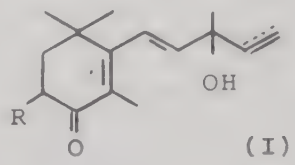
OCEA- D13 84953 C/48 =U
Decolourisation of pink grapefruit juice - by vacuum through coarse diatomaceous earth
OCEAN SPRAY CRANBER 20.04.79-US-032094
*(13.01.81) *GB2047-068 + A23l-02/30*
20.04.79 as 032094
Pink grapefruit juice (concentrate) (I) is decolorised by pre vacuum filtration bed of coarse particulate diatomaceous which at least 80wt.% has a particle size above 10 microme subjecting to vacuum filtration at a pressure differential fr inches of mercury and at a flow rate from 0.1-0.5 gal/m through the bed (I) to form a prod. having its citrus decreased by 10-25 units and its citrus yellowness decreased units as measured on a Hunter citrus colorimeter and ha total pulp content decreased by 50-90wt.%.

Prod. may be blended with white grapefruit juice to form contg. up to 50wt.% of the prod.

HOFF D13 89714 B/50 =US
Synthesis of red food dye astaxanthin - from new 4-oxo-bet derivs.
HOFFMANN-LA ROCHE INC 29.03.79-CH-002921 (02.0 006073)
*E24 (13.01.81) *EP---5-749 + C07c-69/61*
21.05.79 as 040626 (8pp945)
Intermediates to astaxanthin of formula (I) are new (whe acyloxy or an ether gp. convertible to a hydroxy gp. and th bond is opt. hydrogenated). Specific cpds. (I) include 5-(4-ac oxo-2,6,6-trimethyl-cyclohex-1-en-1-yl)-3-methyl- penta-1,4-d 3-acetoxy-4-oxo-ethynyl-beta-ionol and 3-(3-hydroxy-3-me pentadienyl)-6-(1-methoxy-1- methylethoxy)-2,4,4-trim cyclohex-1-one.

They are prepd. by vinylation or ethynylation of a corresp. cpd. (II) in which the C(OH)Me-CCH or C(OH)Me-CHCH2 m the side chain is replaced by a CMeO gp. a vinyl or magnesium halide is reacted with (II) in aprotic solvent at (II) is prepd. from 4-oxoionone.

Astaxanthin is a naturally occurring red colouring agent foodstuffs. It can be prepd. from cpds. (I) in racemic or o active forms.



(I)

See Also

D15 BE 884020 D15 US 4244818 D16 EP --2
D16 J5 5150892 D16 J5 5150899 D16 J8 100
D16 SU 737450 D17 SU 737462 D23 DE 292
D25 US 4244975

D14: FOODSTUFF MACHINERY

BUSC/ ★ D14 D/05 ★IT 1048-093
Tomato skinning appts.
BUSCETTO G 22.10.75-IT-051891
(20.11.80) A23n

MAGN- ★ D14 D/05 ★IT 1048-414
Industrial scale skinning process - for fruits and vegetables, in particular tomatoes
MAGNUSON ENG INC 08.09.72-US-287339
(20.11.80) A23n

TOKR- ★ D14 06904 D/05 ★J5 5152-533
Appts. for stirring grains - e.g. rice grains prior to polishing or cleaning
TOKYO RASHI SEISAKU 14.05.79-JP-058023
P28 Q61 (27.11.80) A47j-43/04 B01f-07 F16b-33/02
14.05.79 as 058023 (2pp26)
Appts. comprises screw like worm gear and rotary shaft for rotating the screw. The object is to stir the grains homogeneously and allow for use in a table-top domestic rice cleaner.

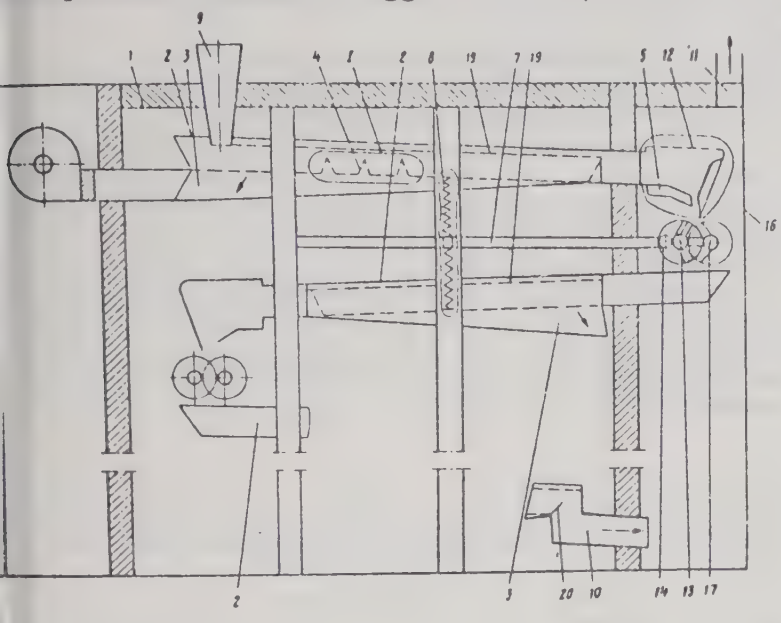
The entire screw is shaped like a hand drum in Japan, (i.e. a roll having reduced middle portion or tapered roll) and us horizontally. A single- or multi-started thread is formed surface of the screw and has round tops and round valleys t crushing the grain. Owing to the graviational force, the grai to gather towards the middle area of the screw.

TORA D14 53377 Y/30 =J8 1
Dialysis and ultrafiltration membrane separator - has c supply system enabling easy replacement of waste dialysis flu
TORAY IND INC 15.12.75-JP-148440
*J01 + P34 (06.01.81) *J52072-379 B01d-13 + A61m-01/03*
15.12.75 as 148440 (11pp46)
In a method for performing both dialysis and ultrafil simultaneously by contacting material fluid to fresh dialys through a semipermeable membrane, the improvement is t fresh dialysis fluid is fed from and returned to a variable v cylinder so that a closed circuit is formed betweenthe men separator and the cylinder.

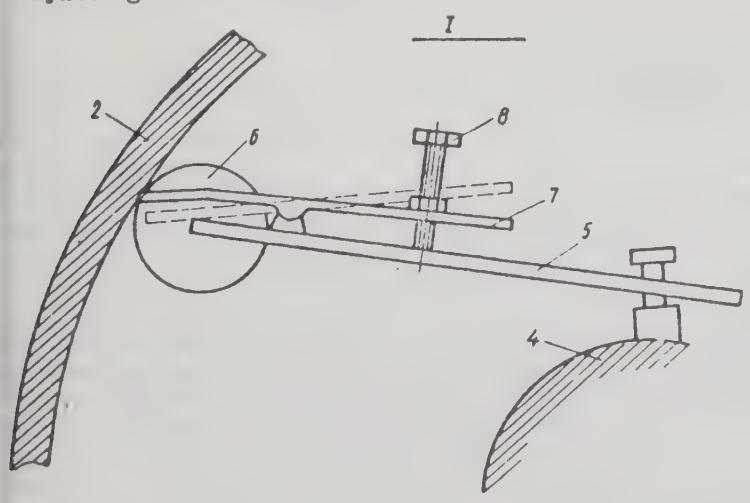
The fresh dialysis fluid is fed from the first cylinder membrane separator, while waste dialysis fluid is recei opposite chamber of the cylinder. The fresh dialysis fluid is th from the second cylinder, while the waste is discharged

ge line. Thus, fresh dialysis fluid is fed from one of the rs alternately.
eparator is used in purificn. of blood and condensn. of milk vell-controlled pressure with higher efficiency. (J52072379)

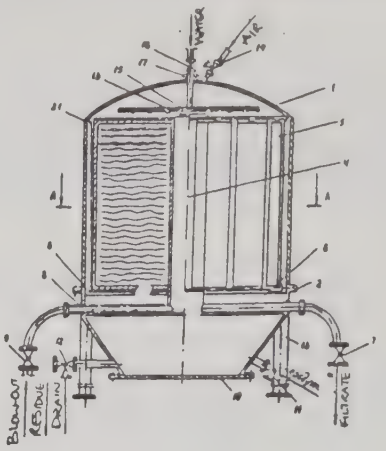
= ★ D14 07119 D/05 ★SU-735-886
owing material vibration dryer for food industry - has pair of ng rollers placed in upper and lower staged perforated s
OR POLY 23.02.78-SU-583068
(27.05.80) F23b-17/26
8 as 583068 (6pp110)
ion dryer for free-flowing material can be used in food ry for drying fruit and vegetables. It contains a chamber with perforated troughs, having self-contained gas distribution and a vibro drive. In order to increase drying quality and se output, a pair of crushing rollers is placed between the stage trough outlet section and the lower stage trough inlet . The drive crushing roller is connected to the vibro-drive h an eccentric and a rod.
driven crushing roller is sprung. The drive roller has plate and the driven roller has teeth with sharp edges. The gap en the teeth in each pair reduces in steps in the direction from per stage to the lower stage from 12 to 0.2 mm. Each trough section is provided with multichannel directing chutes. The f each trough is provided with conical perforated hoods with a the apex. The hoods are staggered. Bul.20/30.5.80.



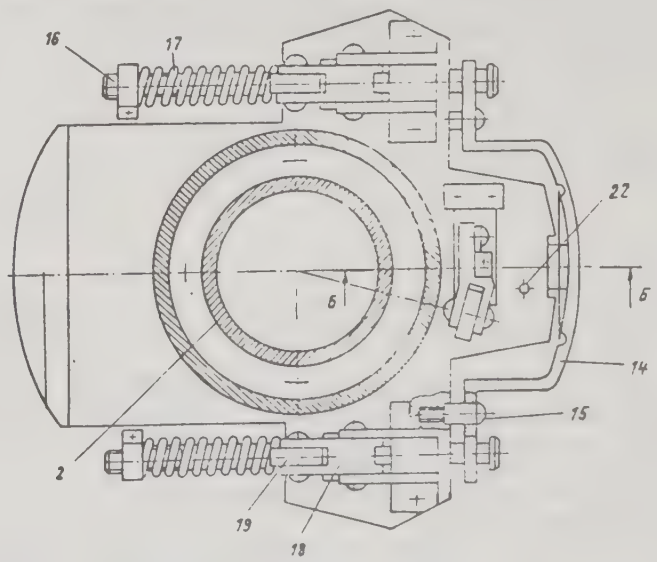
'= ★ D14 07133 D/05 ★SU-735-901
exchanger for heat treating food products - has each traverse d at one end to rotor, and with roller on other
ESS FOOD SUPPLY 04.11.76-SU-417344
(26.05.80) A23l-01/21 F28d-11/02
6 as 417344 (4pp18)
eat exchanger comprises a body with co-axial cylinder and in it, the rotor connected to a traverse on which knives are d. For reliability in heat treatment of pastes and purees, each se is pivoted at one end to the rotor, and has a roller on the in contact with the inner surface of the cylinder. The knives n adjusting screw resting on the traverse. Bul.19/25.5.80.



KOVA/ ★ D14 07177 D/05 ★SU-736-993
Filter for food products - has filter cloth strips stretched over filter elements and held by triangular inserts with either dry or wet residues discharge
KOVALEVSKII K A 11.08.76-SU-395008
J01 (05.06.80) B01d-29/06
11.08.76 as 395008 (6pp29)
Filter for separating products from liquid in the food industry (e.g. juices, wine and yeast suspensions), comprises a cylindrical body inside which is a shaft bearing flat filter elements, over which continuous filter cloth strips are stretched. Productivity is increased by putting tightening rings in the ends of the body with the flat filter elements mounted radially on the shaft. Flat triangular inserts are disposed between the filter elements in the upper and lower parts of the cylinder. These inserts serve to hold the filter cloth in place. The base of each insert is fastened to the corresponding tightening ring.

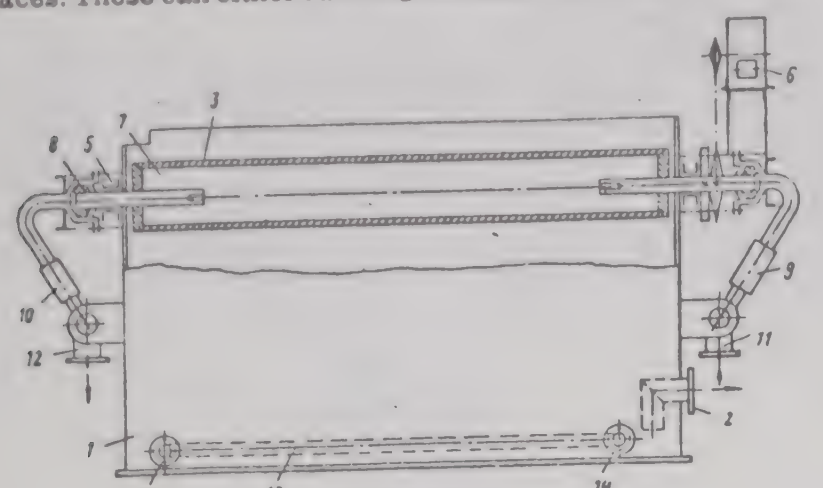


TEXT= ★ D14 07254 D/05 ★SU-737-209
Fibrous material circular component cutting - using knife made as flexible disc fitted on spindle
TEXTILE IND PLAN CO 15.12.77-SU-555684
F07 P62 (30.05.80) B26d-01/12 B26f-01/38 D06c-27
15.12.77 as 555684 (3pp110)
The unit is used for circular component cutting from fibrous material for cotton milk filer prodn. The unit contains a knife which is mounted on a spindle by means of a flange. The knife can rotate along the component circumference and can reciprocate in the vertical plane. In order to increase output, the knife is made as a flexible disc whose axis is placed perpendicular to the spindle axis. The disc has an arrangement for bending during component cutting, can rotate about its axis and is mounted on the spindle.
The disc knife bending arrangement consists of a clamp, a stop, sprung push rods with pins, master former disc and rollers. The rollers are hinged on the flange and contact the master former disc, fitted on the spindle, and with pins. The arrangement for knife rotation about its axis consists of a roll fitted on the flange, and a ratchetmechanism. The roll carries a sprung lever with a roller which contacts the master former disc. Bul. 20/30.5.80.

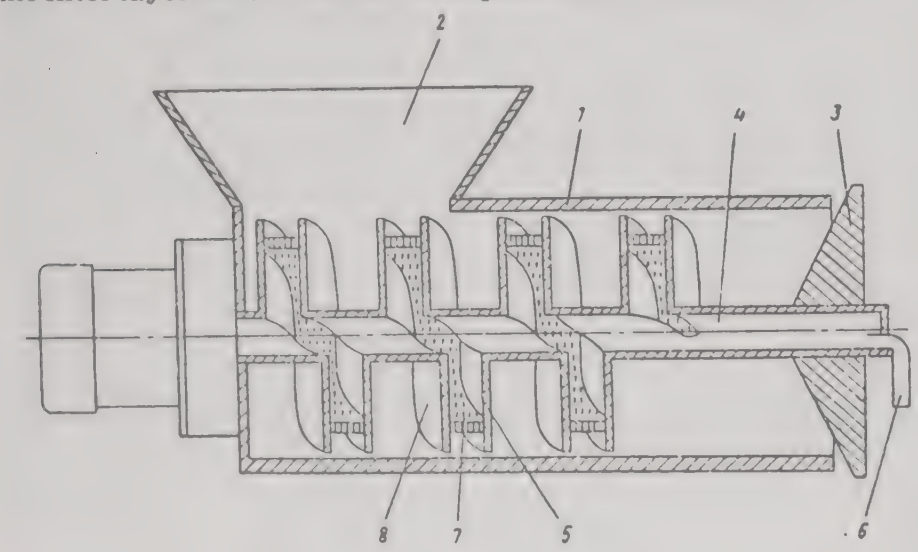


BELO/ ★ D14 07344 D/05 ★SU-737-435
Edible fats melter for trans-esterification processes - has container with rotating heated surface channel tube at top, and heating coils at bottom
BELOV A F 19.07.78-SU-649560
(02.06.80) C11b-01/14
19.07.78 as 649560 (3pp29)
Fat-melting equipment, for use in the food industry, where edible fats are subjected to trans- and hydrotrans-esterification, has container with pipe to remove the fat as it melts plus horizontal heating elements in the upper and lower parts, and pipes to feed and

take away the heat carrier. The melting process is speeded up and loss of product is cut down, by removing the melted fat continuously from the melting zone, with reduction of the temperature of the heat carrier. The heating elements in the upper part of the container consists of rotatable tubes with channels cut into their external surfaces. These can either run longitudinally or helically.



MOFO= ★ D14 07354 D/05 ★SU-737-446
Fruit pulp juice extractor - has a smaller diameter auger perforated flight part to form a filtering layer
MOSC FOOD IND TECH 03.10.78-SU-670885
P71 (03.06.80) B30b-09/14 C12g-01/02
03.10.78 as 670885 Add to 320396 (2pp89)
Improved quality of juice pressed from grape or fruit pulp reduces the amount of suspended matter in the juice. This is due to the perforated part of each flight turn made equal to 0.7-0.95 of the diameter of edge of the flight side in the auger. The pulp is continuously fed to the charge hopper and the auger forces it into the housing. The perforated part of the auger acts as a filter for the pulp layer while the pressed juice flows from the inter-turn space through the filter layer which retains the suspensions.Bul.20/30.5.80.



TEXT= ★ D14 07439 D/05 ★SU
Milk filter automatic prodn. unit - has directing elements wi side displacement limiters
TEXTILE IND MIN BUR 29.03.78-SU-595802
J01 (05.06.80) D06c-27
29.03.78 as 595802 (9pp110)
The milk filter automatic prodn. unit contains an arrange paper and filtering strip unrolling, paper cutting mechanis directing rollers, paper sepn. and transportation arrangem application system, heating element and knives for rea block cutting. In order to increase the filter quality, the provided with directing elements with paper side displ limiters. A mechanism for filter block cutting into individu is kinematically connected to the drive.The unit also co bunker-accumulator.
The directing elements are made as bracket with directi one of which is provided with limiting protrusions. The provided with two clamps fitted on a carriage kinem connected to the drive. One of the clamps consists of a box, t planks with slots and rollers and directing racks and the othe consists of a plate with rollers.The mechanism for filte cutting into individual filters consists of sloping platform system of scissors.The bunker-accumulator is sprung.Bul.20/

NAEQ- D14 86324 C/48 =US
Food oven with controlled atmosphere - with temperatu moisture content controlled by air circulation around not t oven
NAT EQUIPMENT CORP 10.05.79-US-037759
*(13.01.81) *WP8002-363 A23l-01 + A23b-04/04 C12c-03/04*
10.05.79 as 037759 (10pp1376)
Food oven is formed by a double-wall between which circulated and has apertures in the inner wall which are enough to prevent much air passing into the oven chamb allows moisture and heat to pass between the chamber and The circulating air is heated.
Pref. the apertures are louvred slots transverse to the ai Tray supports on the inside of the inner wall are pref. between louvres.
Heat and moisture can be controlled without circulati contacting the prod.

PENN ★ D14 D/05 ★ZA 8
Flume for transporting e.g. fruit - has trough where accumulates and paddle directing water flow which transport
PENNWALT CORP 11.06.79-US-047230
Q31 Q35 (05.11.80) A23n B65b B65g
15.01.80 000255 (23pp-)
A flume for transporting fruit etc. between sorter and pac appts. and for measuring batches of fruit into the packaging comprises a trough for accumulating the fruit and a slowly m paddle which directs the water flow against the fruit to transp fruit toward an exit gate.
This method of transporting fruit allows the use of a single line for processing fruits of varying degrees of buoyancy, e.g. and pears, without using a flotation agent.

D15: WATER TREATMENT

STAM ★ D15 05690 D/05 ★BE-884-020
Phosphate removal from waste water - by treatment with metal cpd. in liq.-phase fluidised bed of metal phosphate
STAMICARBON BV 30.06.79-NL-005111
C03 E36 (C04 D13) (29.12.80) B01d C02f-01/58
26.06.80 as 884020 (10pp367)
Removal of P cpds. from waste water is effected by treatment with a metal cpd. (I) to form a water-insoluble metal phosphate. e improvement comprises carrying out the treatment in a fluidised bed of metal phosphate particles.
The process overcomes the problem of sepg. the pptd. phosphate and dewatering the resulting sludge, and may even eliminate the need for a downstream settler. Solids withdrawn from the fluidised bed can be processed to produce phosphoric acid, technical phosphates, animal feed additives and/or fertilisers. (FL)

ALCH- ★ D15 05752 D/05 ★BE-
Rotary screening drum with spaced longitudinal rods - has ch conduit which discharges by overflowing well inside the drum
ALCHALDEAN INT PTY 09.09.80-BE-885149
J01 (31.12.80) B01d C02f
09.09.80 as 885149 (13pp448)
Rotary screening drum is of the type which has its wall mad longitudinal, circumferentially spaced rods of triangul trapezoidal cross-section. A loading chute charges materia screened into one end of the drum which delivers at the other fraction which will not pass the screen.
The loading chute now comprises a delivery conduit coaxia the drum and extending into the drum by a distance of betwe quarter and one half of the axial length of the drum. The upp of the conduit is cut away for not less than half the length extends into the drum. Material to be screened is delivered fr cut away section of the conduit by overflow.
Pref. at least one vertical baffle is fitted in the outlet of the c to restrain axial discharge through the conduit.

or screening waste water etc., e.g. effluent from abattoirs, acking stations, sewage stations etc. Highly efficient n of drum by using the overflow conduit to spread incoming over the broadest possible area of the screening surface.

★ D15 05755 D/05 ★BE -885-157
nt copolymer from neutralised acrylic acid - and higher and rylic ester(s), polymerised by electron beam
ORICH B F CO 11.09.79-US-074454
C03 (A97 D22) (31.12.80) C08f
as 885157 (18pp510)
ymer is prepd. from (a) 50-90wt.% of acrylic acid, with 60- the COOH gps. neutralised with an alkali metal or NH4 polymerisation, (b) 2-25wt.% of a higher acrylic ester of CH2/CR'-COOR, where R' is H or (m)ethyl; and R is 10-30C nd (c) 5-30wt.% of a lower acrylic ester of formula CH2/CR'- where R is 1-8C alkyl; 0-50% of (c) may be replaced by crylonitrile or (meth)acrylamide. The mixt. is polymerised sure to an electron beam.
monomers may be polymerised in any form, e.g. films or The prods. are useful in absorbing water or body fluids, e.g. iary towels or disposible napkins, opt. with other absorbent als. The prods. are also used as flocculants in water ent, in flotation of ores, in soil treatment, or in coating of The copolymers have high absorption and retention for water ic solns.

★ D15 05784 D/05 ★CA 1092-260
rsible sewage aerator with rotating impeller - driven by l motor drawing air down conduit (SE 24.4.78)
VERSAL ELECTRIC 01.10.76-US-728554
12.80) B01f-03/04 C02b-01/12 C02c-05/04
as 283073 (14pp295)
eller is located at the lower end of a vertical shaft rotated by r. The motor assembly is submerged in a liq. tank and the of the impeller draws air down a conduit to the centre of the er from white it is discharged into the liq.
motor shaft passes through a seal adjacent the centre of the er and is thus exposed to air and not the liq. in the tank. The r is supported on legs. The aerator is submerged in a body of e. The motor shaft seal lasts longer because it is not exposed to e.

/ ★ D15 05807 D/05 ★DE 2924-955
er for water - having set of inlet weirs with array of inclined ells below them to encourage settling of solids
ROS G R 21.06.79-DE-924955
01.81) B01d-21/02
9 as 924955 (16pp1053)
g tank is for purifying water and consists of a settling space nlet and outlet branches. Below this is a collection sump for ulated sludge. Part of the settling space is divided into a array of cells one above the other, each inclined to the al.
se cells are formed from pipes radiating from a central well which the water flows. To leave the settler, it then flows up the ed pipes to a final weir. The inclination of the pipes to the ntal is 30-60 deg.C.
d for clarifying and purifying water. The settling effect is ced by the increased surface area across which the water low.

- ★ D15 05817 D/05 ★DE 2925-492
purification appliance - with spiral partition in flat cylindrical ner
EMIE BRITA GERATE 23.06.79-DE-925492
.01.81) B01d-25/06
79 as 925492 (14pp39)
pliance for the purification of water, esp. for households and urants, is a container of flat cylindrical shape which encloses rifying agent (activated carbon, ion exchange resin). The inlet the centre of the top and the water is directed by spiral ions to flow in a helical path to the outlet at the periphery. The nlet connection is a rapid coupling with a restrictor nozzle.
s extends the time of retention of a water flow in the purifying without excessive increase in height of the bed. Its compact n enables it to be coupled directly to a water tap.

R/ ★ D15 05820 D/05 ★DE 2925-569
vater desalination - by condensation of Oe-Laval nozzle injected n in cylinder inside outer cylinder at negative pressure
BERLE P 25.06.79-DE-925569
2.01.81) C02f-01/06
79 as 925569 (6pp39)
ater is desalinated in two horizontal cylinders, the inner cylinder acting as a condensation space and the space between inner and outer cylinder filled partly with preheated seawater and kept at a negative pressure. A separate boiler for preheated seawater supplies the working steam for an injector type of jet pump which is designed as a De Laval nozzle and injects the steam for condensation into the inner cylinder.

System reduces the number of moving parts to a minimum so that energy is saved and maintenance is reduced. Solar heat converters in suitable regions reduce the costs still further.

LINM ★ D15 05842 D/05 ★DE 2926-441
Oxygenation of liquids for biological treatments - using fresh oxygen feed with vent gas purge controlled by pressure and oxygen content in space above liquid
LINDE AG 29.06.79-DE-926441
(22.01.81) B01f-03/04 C02f-01/72
29.06.79 as 926441 (16pp1053)
Oxygen enrichment of liq. in a closed vessel is carried out by injecting pure O2 into the gas space. The gas above the liq. is drawn into the liq. by means of an agitator. Purge gas is vented.

The quantity of gas as fresh O2 injected into the system is controlled by the pressure and O2 content of the gas above the liq. The purge gas exhaust stream is also controlled by a combination of these parameters. The gas input can also be linked with the O2 content of the liq.

For use on activated sludge treatment of effluent streams. Improves the O2 utilisation and thus reduces overall O2 usage.

HENK ★ D15 05854 D/05 ★DE 2926-606
Waste water purification by pptn. - using alkali-and or alkaline earth aluminosilicate in addn. to standard precipitant and flocculant
HENKEL KG AUF AKTIEN 02.07.79-DE-926606
(22.01.81) C02f-01/52
02.07.79 as 926606 (19pp200)
Waste water to be purified by pptn., opt. set to a weakly alkaline to weakly acid pH, is admixed with 0.1-10 (0.2-5) esp. 0.3-3 g/l of esp. bonded water-contg. X-ray amorphous or crystalline (prefd.), finely-divided alkali- and/or alkaline earth alumino-silicate having formula xCat2/nO.Al2O3.ySiO2 (I) (where x is 0.7-1.5; y is 0.8-6; Cat is Na, K, Mg or Ca and n is 1 or 2), in addn. to the standard precipitants and flocculants, e.g. silicates Fe- or Al salts or organic polymers. The ppte. formed is sepd. from the water.

The addn. of (I) increases dirt elimination rates and/or precipitant quantity requirement. Larger flakes are obtd., which settle more quickly and are more easily sepd. The sludges contain less water and are more easily disposed of.

MAUG ★ D15 05887 D/05 ★DE 2928-392
Sea water desalination - by descending film evaporation and vapour compression in common horizontal tank
AUGSBURG NURNBERG AG 13.07.79-DE-928392
Q52 (22.01.81) B01d-01/04 C02f-01/08 F02g-05
13.07.79 as 928392 (19pp39)
Plant for the desalination of sea water consists of an evaporator which is combined in one unit with a vapour compressor, driven by an i.c. engine. The evaporator is a descending film evaporator with a horizontal nest of evaporator tubes. The compressor is arranged in the centre of one end, in line with the central vapour collection space around which the evaporator tubes are grouped.

This improves the capacity of a plant without increased capital cost. It operates with very small temp. differentials between heating and boiling space.

KURK ★ D15 05927 D/05 ★DE 3022-924
Boiler scale removal without stopping plant operation - by admixing aq. system with itaconic acid polymer premixed with (meth)acrylic acid polymer
KURITA WATER IND KK(SANN) 31.07.79-JP-096681 (19.06.79-JP-077756)
A97 G04 (22.01.81) C02f-05/08
19.06.80 as 022924 (+ 24.7.79-JP-093264) (26pp200)
Boiler scale deposits are removed from surfaces coming into contact with aq. systems by admixing the aq. systems with an effective quantity of itaconic acid polymer, (I), contg. 75-100 mol.% itaconic acid units, (A), 0-25 mol.% of a further unsatd. carboxylic acid, (B), and/or pref. less than 10 mol.% unsatd. monomer (C) different from (B). The descaling compsn. can consist of (I) alone or pref. mixed with an acrylic acid polymer, (II), or its water-soluble salt, in (I):(II) wt. ratio 100:5 to 100:1000.

The aq. systems include boiler water-, closed cooling water-, salt water evapn.-, waste water concn.- or waste-gas dust collector systems. The plant need not be stopped for descaling.

VEMD/ ★ D15 05974 D/05 ★DE 3024-997
Biological effluent cleaning plant - using fixed bed reactor with particles of less specific gravity than water
VON DER EMDE W 03.07.79-AT-004632
(22.01.81) C02f-03/02
02.07.80 as 024997 (8pp39)
Clarification plant for the biological purification of organically contaminated sewage includes a fixed bed reactor composed of granular material which acts as a surface of adhesion for anaerobic microorganisms and is traversed by the effluent.
Preferred the fixed bed reactor material has specific gravity lower than that of water; it consists at least partly of effervescing clay.
Reactor material is easy to handle and to clean. The precleaning achieved results in a reduced energy consumption for the following activated sludge process.

NIKN ★ D15 05993 D/05 ★DE 3026-430
Removal of dissolved heavy metals from liq. - by adsorption of metals on steelworks slag, esp. for removing mercury etc. from waste water
NIPPON KOKAN KK 02.05.80-JP-057788 (13.07.79-JP-088300)
J01 M25 (22.01.81) C21c-05
11.07.80 as 026430 (+4.10.79-JP-127307) (50pp1144)
The liq. is treated with an agent (I) contg. a slag formed during the mfr. of steel. The slag pref. has a particle size of max. 100 mesh, and is mixed with the liq. so the heavy metals are adsorbed and fixed on the slag. The liq. is pref. a soln. or sludge with pH max. 7, esp. pH max. 2 obtd. by adding acid.
The liq. is esp. waste water contg. Hg, which is treated with the slag and then with a chelate resin to remove any Hg left after sepn. of the slag. The slag is pref. heated for reclaiming the absorbed metals, or can be converted into mouldings.
Used in the avoidance of environmental pollution by removing metals such as Hg, Cd, Pb and Cr from effluents.

SASA- D15 46121 W/28 =DS 2507-209
Desalination of sea water in continuous multistage evaporator - with discharge steam of ejector to create vacuum used to heat the sea water
SASAKURA ENG CO 22.02.74-JP-021746
*J01 (22.01.81) *BE-825-786 B01d-01/26*
20.02.75 as 507209 (6pp39)
A distn. process of a liq., esp. for use in the desalination of seawater, is based on a multistage evaporator, with temps. decreasing from stage to stage. The vapours of the stage with the lowest temp. are exhausted by a jet pump operated by high-pressure steam. The mixt. of vapours and injector steam is passed to the heat exchanger of the stage with the highest temp. The liq. to be distilled is taken to the stage with the lowest temp. and the heat exchanger of the stage with the highest temp. receives the concentrate from the last stage.
Such a process achieves a better efficiency by mixing low pressure and high pressure steam. (DS)

SOMA- D15 67146 Y/38 =DS 2700-542
Sieve dewaterer with screw conveyor - has sieve in sections having different hole sizes in each section
SOMAT CORP 27.12.76-US-754162 (09.01.76-US-647973)
*J01 + P71 (22.01.81) *DE2700-542 B01d-29*
07.01.77 as 700542 (6pp39)
Thickening filter for liquids with a solids content consists of a stationary horizontal screen cylinder with many holes of small diameter, gradually changing from the feed end to the discharge end into less holes of larger dia. An axial screw moves the material along.
The outer supporting cylinder is a coarsely perforated tube which adjoins with its inner wall the outer wall of the screen cylinder. The screen cylinder is pref. split along a dia. and joined by flanges.
The screen cylinder can have a thin wall, yet can withstand high pressures without risk of deformation.(DS)

UNIC D15 50437 Y/29 =DS 2701-820
Porous support elements for reverse osmosis membranes - comprising cast hollow mouldings of granular filler with solvent-free liq. epoxy binder
UNION CARBIDE CORP 19.01.76-US-650357
*A88 J01 (A21) (22.01.81) *BE-850-497 B01d-13 C02f-01/44*
18.01.77 as 701820 (9pp922)
Perous, stiff, strongly bonded hollow bodies (esp. tubes) whose walls comprise plastics-covered filler particles of particle size 40-500 microns, the plastics being 1-18 wt.% of the filler, and which are covered by a reverse osmosis membrane (esp. cellulose acetate) so that the assembly may be used to purify (sea) water with low energy consumption, use a plastics compsn. obtd. by curing a solvent-free mixt., whose viscosity is less than 100 cP at 25 deg.C, of (a) 1 pt. of a liq. epoxy resin, (b) 0.75-1.55 pts. of a liq. organic anhydri agent, (c) 0.25-0.95 pts. of a liq. reactive diepoxy diluent and ammonium, phosphonium or arsonium salts in latent quantities.
The bodies have improved dry compressive strength and strength.(DS)

BATT D15 64857 B/36 =D
Composite membrane prodn. for hyperfiltration - from polymer carrier film with sepg. film coating and porous su membrane, giving high capacity
BATTELLE-INSTITUT 25.02.78-DE-808222
*A88 J01 + P73 (A11 A14) (22.01.81) *DE2808-222 C08j-05/2*
25.02.78 as 808222 (4pp260)
Composite membranes are produced by first applying to a film, made from soluble polymers, a polymer soln. and eva the solvent, so as to form a separating membrane. The sic carrier with the membrane is attached to a porous membrane. A carrier film 2-100 microns thick is pref. use can contain up to 50 wt.% plasticisers. The carrier film supporting membrane pref. contain a non-ionic wetting agen
A technically advantageous process produces co membranes. A masking layer is no longer required. T separating membrane is effectively protected against me damage till required for use.(DS)

STAM D15 02342 B/02 =EP
Biological purification of waste water - in which surplus s hydrolysed with a recoverable volatile base
STAMICARBON BV 27.06.77-NL-007081
*(21.01.81) *EP-----230 A23j-01 + C02f-01/02*
21.06.78 as 200057 (8pp974) (E) No-Citns. E(BE DE FR GB SE)
Waste water is biologically purified by hydrolysinga suspe the sludge formed in a basic medium and at an elevated te hydrolysis is at pH 8-11 and 90-300C using a volatile base whi hydrolysis is terminated, is expelled from the hydrolysate.
Pref. hydrolysis is at 90-200C. Pref. the base is amm ammonium carbonate. Pref. the expelled base is recycled.

CASS ★ D15 06021 D/05 ★EI
Sulphur recirculation from coloured waste liquor - cont sulphide and poly:sulphide by decolourisation with heav hydroxide or salt
CASSELLA AG 02.06.80-DE-020894 (30.06.79-DE-926528)
E24 (14.01.81) C01b-17/22 C02f-01/58
19.06.80 as 103417 (13pp016) (G) AT-212337 DE1667763 DE
1.Jnl.Ref E(DE FR GB IT)
Recirculation of sulphur from coloured waste liquors cont sulphide or polysulphide, comprises treating the soln. with su heavy metal hydroxide (IA) or salt (IB) for decolorisation, s ppte. and either pptn. and sepn. of sulphur from the filtrate c the alkali polysulphide in the filtrate for the prodn. of dyestuffs..
The process is useful for treating strongly coloured filtrat sulphur dyestuff prodn. in large amts. It is very valuab economically and ecologically.

KERR/ ★ D15 06078 D/05 ★EP
Removing halo-amine cpds. from swimming pool water - by through a bed of surface oxidised carbon
KERRIDGE J R 06.07.79-GB-023578
E16 (14.01.81) C02f-01/76 C02f-09
04.07.80 as 302295 (13pp1251) (E) AT-127115 AT-125497 AT-124
439069 US1634154 US1903889 AT-296172 GB-239694 US
DE2707471 DE2754488 GB-316965 DE1222892 FR2329321 E(AT
DE FR GB IT LI NL SE)
Halogenated pool water is treated by passing it through an carbon bed of surface area above 200 sq.m.per g., the carbo treated before or during passage of water with a reagent produces a (partial) surface oxidn. layer. This oxide layer with monohaloamine and removes it from soln., while the rem of the carbon layer catalyses decomposition of dihalo preventing formation of nitrogen trihalide.
Pref. the carbon has surface area 500-1500 sq.m.per g., and oxidn. is with a 3-30 mg. per l. hypochlorous acid soln., pref. m injecting chlorine into the water before treatment. An appts. process is also claimed..
Effective (up to 80%) removal or inhibition of halogenated n cpds., which are irritating to the eyes, etc. is achieved.

★ D15 06104 D/05 ★EP --22-422
rbonated drinks esp. for fresh drinks dispenser - by holding ptimum temp. for saturation as gas is injected
B IGLOO 12.06.79-FR-015732
1.81) A23l-02/26 B01f-03/04
as 430012 (10pp448) (F) US3721369 GB1385468 GB1314832 828 US2665559 US3370755 DE1442578 E(BE CH DE GB IT LI

el contg. liq. to be carbonated is cooled in a bath of refrigerant er to maintain a temp. of 2 to 5 deg. C in the liq. aneously, carbon dioxide is injected into the vessel, pref. h the liq.
. the vessel floats in the bath of refrigerant so that the vessel s carbonated drinks are drawn off and falls as fresh liq. is ed to the vessel. When the vessel rises to a predetermined level, this pref. actuates a valve which opens to recharge the with liq. so that it sinks back to a lower level..
l for mfr. of carbonated drinks, esp. freshly carbonated drinks pensing or vending machines. The system ensures that liq. is mum temp. for saturation with carbon dioxide at the point at gas is introduced. This is achieved with optimum economy in eration energy requirement.

/ D15 02235 D/03 =EP --22-423
water flocculation treatment - precipitates fine flocks by l pipe concentric to stand-pipe
LL H G 06.07.79-DE-927802
*01.81) *DE2927-802 C02f-01/52 + B01d-21/24*
0 as 730025 (12pp39) (G) NO-CITNS. E(BE CH FR GB IT LU NL

ystem of clarifying surface or waste water by sedimentation he addn. of a flocculant, the clarified water is discharged by ow into a central standpipe. The novelty is that a concentric as now been added around the standpipe, with three or four ntal slots through which the water must enter before it can d to the overflow. The width of the slots increases pref. vard to ensure the ingress of equal amounts of water..
; ensures that the water moves horizontally in all layers right he standpipe. This ensures that even smaller flocks have time ome deposited.

★ D15 06118 D/05 ★EP --22-475
oly:aluminium-iron halide solns. - useful as coagulants for water treatment
LIED CHEMICAL CORP 06.07.79-US-055416
1 (21.01.81) C01g-49 C02f-01/52
30 as 103202 (18pp1251) (E) US4005009 US4034067 FR2036685 7857 US2858269 E(DE FR GB IT)
. base polyaluminium iron halide soln. contg. a cpd. of formula ew:

)1-x.(Fe(III))x.(Fe(II))y (OH)3 + 2y-z.(Hal)z (I)

s bromo, iodo, chloro or their mixts., esp. chloro; the ratio + y)/(1-x) is 0.2-1.5; the ratio (R1)(3 + 2y-z)/(3 + 2y) is 0.24-0.67; z is han (3 + 2y); x/y is 0-1, and the concn. of metal ions is 1.35-4.5 ; per l).
f. R is 0.4-0.6; R1 is 0.5-0.67 and x over y is 0.5-1. The solns. can ade by combining a polyaluminium halide soln. with a ferrous rric halide, or by combining an aq. Al halide soln. or a 2,2- oro-5-methyl-1,1,1- trifluorohex-4-ene (I) polyaluminwith lic iron..
solns. are useful as coagulants for treating waste water, esp. aline pH. They are as good as polyaluminium chloride solns. neaper because some aluminium is replaced by iron and can be from waste materials such as scrap iron and spent pickling .

B ★ D15 06149 D/05 ★EP --22-525
cing chemical oxygen demand in waste water - by treating with ogen peroxide and transition metal cpds.
AYER AG 11.07.79-DE-927911
37 (21.01.81) C02f-01/72 C02f-09
80 as 103814 (23pp367) (G) DE2835496 EP---8074 FR2271179 03268 E(AT BE CH DE FR GB IT LI NL SE)
COD of waste waters is reduced by (a) adjusting the pH to 2.0-9.0 4.0-5.0), (b) treating with hydrogen peroxide and one or more r-soluble transition metal cpds. (I) at 5-100 (esp. 25-35) deg. C, c) removing flocculated material, opt. after adding a base.
step (b), the H2O2 is added in an amt. corresp. to 50-65% (esp. 57- of the amt. required for total oxidn. of the entire COD content, he H2O2:(I) molar ratio is 3-30:1 (esp. 13-18:1)..
contrast to prior art H2O2-treatment processes, the toichiometric amt. of H2O2 is utilised entirely for COD adation, and the residual COD content is biodegradable.

FARB ★ D15 06150 D/05 ★EP --22-526
Reducing chemical oxygen demand in waste water - by treating with small amt. of hydrogen peroxide and metal cpds.
BAYER AG 11.07.79-DE-927912
E37 (21.01.81) C02f-01/72 C02f-09
04.07.80 as 103815 (17pp367) (G) DE2521893 FR-766621 DE2615036 AT-339221 J52045582 2.Jnl.Ref E(AT BE CH DE FR GB IT LI NL SE)
The COD of waste waters is reduced by (a) adjusting the pH to 2.0-9.0 (esp. 4.0-5.0), (b) treating with hydrogen peroxide and one or more water-soluble transition metal cpds. (I) at 5-100 (esp. 25-35) deg. C, and (c) removing flocculated material, opt. after adding a base.
In step (b), the H2O2 is added in an amt. corresp. to 5-40% (esp. 15-30%) of the amt. required for total oxidn. of the entire COD content, and the H2O2:(I) molar ratio is 3-30:1 (esp. 13-18:1)..
Combined treatment with (I) and small amts. of H2O2 produces a synergistic redn. in COD; the H2O2 is utilised entirely for COD degradation and the residual COD content is biodegradable.

CELO ★ D15 06291 D/05 ★FR 2452-950
Decanter with lamellar flow channels between sloping surfaces - provided by sheets of synthetic polymer under tension
CELLOPHANE SA 04.04.79-FR-008457
A88 J01 (05.12.80) B01d-21 C02f-01/52
04.04.79 as 008457 (9pp448)
A lamellar flow decanter of the type in which a liq. suspension is channelled between a series of parallel surfaces inclined to the horizontal. The surfaces are now provided by sheets of synthetic polymers held under tension. The thickness of each sheet is pref. between 30 microns and 1 mm. The film material is pref. selected as a polyolefin, a P.V.C., a linear polyester or a butyl or nitrile rubber.
The film material pref. offers an elastic elongation of not less than 3% at 23 deg.C under a tensile stress not exceeding 80% of that at which plastic deformation commences. In the decanter, the plastic film surfaces are set at an angle to the horizontal which is pref. not less than 45 deg.
Used as lamellar flow channel surfaces for decanting a liq. suspension in order to separate a clarified liq. from a sediment. For efficient, lamellar flow, the surfaces must be constantly spaced so plates have had to be stiff, heavy and expensive. These plates together with obstructive fittings, are now replaced with plastic sheets which are inexpensively made and easily fitted.

DEGM ★ D15 06302 D/05 ★FR 2453-107
Prepn. of silico aluminate suspension used as flocculant - from sodium silicate and aluminium hydroxy chloride
DEGREMONT SA 03.04.79-FR-008294
E33 (05.12.80) C01b-33 C01f-07/02 C02f-01/52
03.04.79 as 008294 (9pp597)
Na silicate soln. is reacted with a soln. of an aluminium hydroxy-chloride of formula Al(OH)xCl3-x, in which x is 1-2.5, in amts. such that the suspension obtd. contains 10-20 g/l SiO2 and has a pH of 6-8.
The prod. is used as a flocculant in water treatment. The process does not require a maturation stage and gives little deposition on the vessel walls which is easily removed by washing with an Al salt soln. every 24-40 hrs. The prod. gives better flocculation results than normal activated silica or with an Al polychloride alone.

BRTO ★ D15 06334 D/05 ★GB 1583-394
Sterilisation of liq. by mixing with oxygen - contg. minor amt. of ozone, followed by UV irradiation
BOC LTD 16.07.76-AU-006662
(28.01.81) C02f-01/32 C02f-09
15.07.77 as 029812 (4pp295)
Pref. the O3 is produced by the UV irradiation of the O2 gas before it is brought into contact with the liq. Pref. the O2 and O3 are entrained as bubbles in a downwardly flowing column of the liq.
The method is used to sterilise aq. media e.g. sec. effluent from sewage works, swimming pool water and municipal drinking water. The resulting sterilisation is as effective as sodium hypochlorite or Cl2 sterilisation but is cheaper.

SMHL D15 31988 B/17 =GB 1583-495
Overflows and edges for sludge decantation tanks - to control discharge of water and any floating material
SIMON HARTLEY LTD 20.07.77-GB-030424
*(28.01.81) *FR2397-862 B01d-21/24*
30.05.78 as ------ (4pp1358)
A settling tank has a weir or scum board consisting of elongate plates secured overlapping end-to-end. One or both ends of each plate is stepped to accept the overlap where the plates are secured together, pref. by bolts extending through aligned plate apertures to secure the plates to the tank wall or to a bracket extending from the wall.
The apertures are pref. elongate to permit plate position adjustment, and the plates are of moulded rigid compressed

composite plastics with high tensile and impact strength. The arrangement simplifies board assembly.

JACK/ D15 84401 A/47 = GB 1583-517
Solid bowl centrifuge with differential speed screw - using torque required to drive this as control parameter for flocculant addition
JACKSON J F 04.05.77-GB-018612
*J01 P41 (28.01.81) *DE2819-399 B04b-01/20 B04b-09/10*
17.04.78 as ------ (10pp1358)
A decanter centrifuge has a solid bowl with liq. and solids outlet at opposite ends, and a scroll conveyor rotatable at a different speed in the bowl. A motor with output shaft coupled to the conveyor determines the speed differential and a control mechanism measures the torque applied to the conveyor and controls the speed in dependence on measured torque.

A pump delivers flocculant into inlet pipework at a rate dependent on the differential speed of the conveyor. A hydraulic motor pref. has its body connected to the bowl and its output shaft to the conveyor, and the pumping rate of a pump is controlled in dependence on the hydraulic pressure difference across the motor.

BUCM D15 10641 A/06 = GB 1583-583
Aeration of foaming liquors - using immersed pump with separate liquid and air intakes (NL 31.1.78)
BUCHERGUYER MASCH 27.07.76-CH-009568
*+P41 (28.01.81) *DE2730-190 B01f-03/04 + B02c-18/40*
25.07.77 as 031145 (9pp1358)
A vessel for aerating foaming liqs., partic. farm or clarification plant effluent, has an impeller submerged below liq. surface in use, ducting with an inlet at a set distance above the liq. surface for conducting air and/or foam downwardly to the impeller, and further ducting with an inlet adjacent but below the liq. surface to deliver liq. to the impeller.

The air/foam ducting is pref. coaxially within the further ducting so that the liq. flow path is annular. The ductings are pref. relatively movable and are funnel-shaped, tapering from inlet towards the impeller. The air/foam ducting is pref. carried by suspension springs or chains, and mounts motor and impeller, and the further ducting is supported by swinging links of adjustable length.

UKAT ★ D15 06351 D/05 ★GB 1583-649
Very pure water prodn. - by removal of chloride or sulphate ions by electrolytic sepn. using non ion selective semipermeable membrane
UK ATOMIC ENERGY AUTH 24.11.76-GB-049065
E36 (28.01.81) B01d-13/02 C02f-01/46
24.11.76 as 049065 (5pp955)
The water passes through one compartment of an electrolytic cell, sepd. from a second compartment by a porous non-ion selective membrane having 0.2-1.0 micrometer pores and being thin enough to allow chloride and sulphate ions to pass freely. The water to be treated flows in countercurrent with a flow of water devoid of chloride and sulphate on the other side of the membrane. The cell is polarised so as to attract chloride and sulphate anions across the membrane and out of the water to be treated.

The process is useful for polishing already highly purified water. The prod. is useful e.g. as a liq. blank in analysis.

NATR ★ D15 06355 D/05 ★GB 1583-730
Cyclone separator for sepg. oil from sea water - has shape of sepg. chamber defined by mathematical relationship
NATIONAL RES DEV CORP 31.05.78-GB-025883
H03 J01 P41 (28.01.81) B04c-05/08
31.05.78 as 025883 (3pp67)
Cyclone separator comprises a sepg.chamber having a cylindrical first portion with tangentially directed feed inlets spaced equally around its circumference and, adjacent and coaxial with the first portion, a cylindrical second portion open at its far end. The first portion has an axial overflow outlet opposite the second portion.

The internal dia. of the axial overflow is ao, of the first portion is dl and of the second portion d2. The internal length of the first portion is l1 and the total cross-sectional area at the points of entry to the sepg. chamber normal to the inlet flow is Al. The shape of the sepg. chamber is defined by formula (I)-(IV).

Used for removing a lighter phase from a large vol. of a denser phase, e.g. oil from sea water, with min. contamination of the denser phase.

$15 \leqslant l1/d1 \leqslant 40$ (I) $0.1 \leqslant 4Al/\pi\, d1^2 \leqslant 0.2$ (II)
$0.1 \leqslant d0/d1 \leqslant 0.25$ (III) $1.2 \leqslant d1/d2 \leqslant 3$

BRPE ★ D15 06363 D/05 ★GB 2
Coalescer for removing contaminants from liq. - has coa particles or fibres regeneratable by backwashing
BRITISH PETROLEUM LTD 14.05.80-GB-015986 (17.05. 017177)
H03 J01 (28.01.81) B01d-17/02
14.05.80 as 015986 (5pp67)
Coalescer for removing contaminants from a liq. compri unpacked zone and an adjoining packed zone, the packe having an inlet/outlet and merging into the adjoining packe The packed zone has an outlet/inlet remote from the unpacke contg. particles or fibres as coalescing media bounded, except interface with the unpacked zone, by a container permeable to

Used for removing crude petroleum prods. from tanker wa and refinery effluent. Compact appts. is easily regenera backwashing.

OAKB- ★ D15 06385 D/05 ★GB 2
Discharging PPTD. sludge and water from settling tank common duct feeding separate collecting tanks via valves
OAK BUSSAN CO LTD 11.05.79-JP-057921
(28.01.81) C02f-01/52
29.04.80 as 014011 (8pp295)
Sludge ppts in a settling tank to form a sludge layer and a layer. The contents of the tank are then discharged via a sing at the base of the tank and including a sludge sensor. Valves downstream section of the duct discharge material into ei sludge-collecting vessel or a water-collecting vessel according activity of the sludge sensor. Time delay is provided in the ope of the valves upon detection of the commencement and comple discharge of the sludge layer in the duct.

Appts. discharges the contents of a settling tank into a slud a water tank. Sepn. of the sludge and waters is possible wh the thickness of the layers and also despite layer inversion.

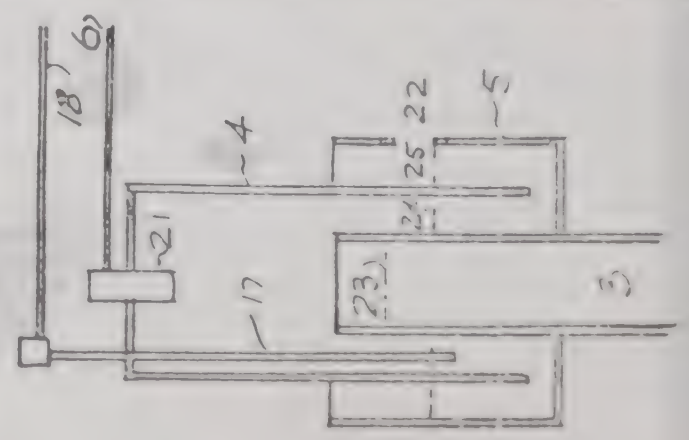
IHAR/ ★ D15 06386 D/05 ★GB 2
Filter for cleansing esp. dry cleaning fluid - with fabric re filter cloth and activated carbon beads
IHARA M 08.05.79-JP-U60185
J01 (28.01.81) C02f-01/28
06.05.80 as 014986 (6pp295)
Filter device comprises a tank with an inlet for a cleansing ag inlet for the liq. to be filtered, and an outlet for the cleansing rotatable, perforated pipe extends through the tank and has an at one end for the filtered liq. Perforated drum is mounted be the tank and the pipe. This has an inlet and outlet for the cle agent and these can be aligned with the corresp. inlet and ou the tank. The peripheral surface of the drum has a filter ma mounted on it. A screw blade is rotatable with the pipe for cha and discharging the cleansing agent to and from the drum.

The device is used for cleaning and purifying the washing liq in dry cleaning of clothes. It may also be used for cleansing s flowing from foodstuff factories and public baths.

DEWH/ ★ D15 06426 D/05 ★GB 20
Sludge removal from settling tank - by suction, with s controlled by changes in sludge density
DEW H O R 11.03.80-GB-008206 (17.03.79-GB-009457)
T06 X25 (28.01.81) B01d-21/24 C02f-11/12 G05d-07
11.03.80 as 008206 (7pp295)
Sludge is removed from a settling tank using a vacuum vess which the sludge is lifted and from where it is discharged. A va is developed and applied to the vessel to accelerate the sludg rest to a preselected rate of flow. When the necessary pressu been established in the vessel, the vacuum pump motor is shut

Pref. the sludge flow rate is infinitely variable between mi max. values.

The appts. can be used for removing a settled sludge from or storage vessel, in particular for the removal of sewage sludg



D15 D/05 ★IT 1048-430
nd industrial water prodn. appts. - used to treat sea water
sation in exchanger with long vertical tubes
ZIOLI G 27.02.69-IT-006940
*30) B01d-00/**

D15 06435 D/05 ★J5 5149-611
rifícn. appts. - comprising strainer provided with back

G EQUIP LTD(JAPK) 09.05.79-JP-056699
80) B01d-29/38
s 056699 (4pp26)
er provided with back washer is claimed. It is usable for
g grains from fluid e.g. dirty water, efficiently. A circular
r plate is disposed in a chamber to form a liq. entrance
and sepd. liq. chamber. A back washing blade assembly is
disposed in the latter chamber so as to spray the sepd. liq.
surface of the plate during rotation of blades of the
, thus removing the grains deposited on the plate in the
.
epn. and back washing operations are performed efficiently.

★ D15 06438 D/05 ★J5 5149-615
ic filter for removing magnetic material from liq. - has
filler of ferromagnetic filaments inserted between filter
s and inlet to reduce clogging
YO SHIBAURA ELEC LTD 11.05.79-JP-056966
(21.11.80) B01d-35/06
as 056966 (3pp26)
etic filter for removing magnetic substances contained in a
h as cooling waters for cold rolling facilities and industrial
waters, comprises a vessel, thin-filament filter elements
f a ferromagnetic wire and packed in the vessel, and a high-
ic exciter coil disposed in the vessel to surround the
ts. The liq. is passed through the elements while they are
ised to remove the substances.
bject is to reduce clogging, reduce the flow resistance, and
perate even for a hot liq. The novelty is that a lumped filler of
agnetic filaments is inserted between the elements and liq.
the vessel to catch coarse grains and part of ferromagnetic
nces at the inlet side of the vessel.

★ D15 06439 D/05 ★J5 5149-616
ng magnetic filter used to treat waste water etc. - by
pting magnetic field and applying gas or liq. under pressure
KYO SHIBAURA ELEC LTD 11.05.79-JP-056967
(21.11.80) B01d-35/06
) as 056967 (5pp26)
ll for cleaning magnetic filter comprising vessel packed with
agnetic elements surrounded by a high magnetic field to
e magnetic impurities contained in a liq. such as industrial
waters is claimed. The object is to improve availability of the

.. of the impurities caught by the elements uses bubbles of a
d into the vessel together with liq. and they carry the
ties to outside, together with the liq. in the time of cleaning.
s may be nitrogen or air. In the cleaning phase, the magnetic
interrupted and gas and/or liq. are flushed with pressure into
sel.

★ D15 06440 D/05 ★J5 5149-617
uous water filtration - using double filter aid coating on filter
nt and recoverable filter and added to water
URA ENG INT KK 09.05.79-JP-056777
.11.80) B01d-37/02
9 as 056777 (4pp26)
forming a precoat layer of filter-aid agent on the surface of a
element contained in a column, the raw water is applied to the
purify the water by the precoat. The object is to prolong a
ng cycle of the precoat and reduce the operation cost.
additional filter aid agent is formed further on the precoat, and
verable additional filter-aid is mixed with the raw water and
to the column, leaving this agent depositing on the precoat.
the filtering rate is reduced to a threshold, the precoat is
ed off together with these aids.

★ D15 06444 D/05 ★J5 5149-623
.. for producing water from gas contg. water vapour - e.g. air in
t region, includes spring deformed by adsorbent bed
TSUBISHI ELECTRIC CORP 09.05.79-JP-057751
2 *(21.11.80) B01d-53/04 E03b-03/28*
79 as 057751 (5pp26)
. comprises a gas column, an absorbent bed formed in the
n to absorb the water content, a heater for desorbing it, and a
nser for condensing the desorbed water.

Improvement is that a spring deformable depending on the weight change of the bed is inserted between the bottom of the column and the bed to support the bed, and a detector is disposed near the bed and coupled with an indicator to detect the positional change of the bed against the spring force.

Amt. of water adsorbed by the bed can be easily detected externally.

MITQ ★ D15 06445 D/05 ★J5 5149-624
Appts. for water prodn. from the atmosphere in a desert - includes adsorbent bed with system for indicating amt. of water adsorbed
MITSUBISHI ELECTRIC CORP 09.05.79-JP-057752
Q42 (21.11.80) B01d-53/04 E03b-03/28
09.05.79 as 057752 (5pp26)
A device for producing pure water from a gas such as the atmos. in a desert district is claimed. It comprises a column, contg. an adsorbent bed formed, heater for heating the bed to desorb the water and condenser for condensing the desorbed water.

A detector is provided for detecting the water content adsorbing condition of the bed, depending on its wt. change. The detector may be a load cell for detecting the wt. of the bed. The cell may be inserted between the bottom face of the bed and inner wall of the bed and connected to an indicator lamp, for example, through an amplifier.

The amt. of water adsorbed can be easily and accurately determined.

MITQ ★ D15 06446 D/05 ★J5 5149-625
Device for recovering water from atmos. - comprising column with adsorbing bed, heater, condenser and collecting tank with content measuring device
MITSUBISHI ELECTRIC CORP 09.05.79-JP-057753
Q42 (21.11.80) B01d-53/04 E03b-03/28
09.05.79 as 057753 (4pp26)
Device comprises a column, adsorbing bed disposed in the column, heater for desorbing the adsorbed water content, condenser for condensing the desorbed water, and tank for receiving the condensed water. The amt. of water in the tank can be measured if the wt. of the tank is known. Between the tank and its frame, a load meter is inserted to weigh the tank and contents and may be connected to a load signal amplifier and a display.

MITQ ★ D15 06447 D/05 ★J5 5149-626
Device for removing water from gas e.g. air - where deformable spring is inserted between tank and frame for detecting amt. of water in tank
MITSUBISHI ELECTRIC CORP 09.05.79-JP-057754
Q42 (21.11.80) B01d-53/04 E03b-03/28
09.05.79 as 057754 (5pp26)
Device for producing a plain water from the water content of a gas such as atmos. in a desert district, comprises a column, adsorbing bed formed in the column, heater for desorbing the adsorbed water, condenser for condensing the desorbed water, and tank for reserving the condensed water. The object is to easily know the amt. of water reserved in the tank. The novelty is that a spring deformable depending on the total wt. of the tank and contained water is inserted between the tank and frame, to which the tank is fixed, so that the tank is displaced depending on the total wt. change and a level meter is provided to measure the displacement of the tank.

MITQ ★ D15 06448 D/05 ★J5 5149-627
Appts. for producing water from moisture in air - e.g. air in desert region, comprises column contg. adsorption bed, heater and condenser
MITSUBISHI ELECTRIC CORP 09.05.79-JP-057755
Q42 (21.11.80) B01d-53/04 E03b-03/28
09.05.79 as 057755 (5pp26)
A-pts. comprises column, adsorbing bed formed in the column, heater for heating the bed until desorbing the water and condenser for condensing the desorbed water. The object is to avoid increase of the gas flow resistanceof bed housed in porous cases and easily drop off dust such as fine sand deposited over the case.

The cases are linked so as to be reciprocally turnable by means of a drive, against return springs connected to the cases, and stoppers are provided to stop the return motion of each case, so that the dust is dropped off from the case due to striking shock of each case.

MITQ ★ D15 06449 D/05 ★J5 5149-628
Appts. for the prodn. of water from atmos. - comprises two columns each with an absorbing bed, and switching valves to alternate absorption and desorption processes in columns
MITSUBISHI ELECTRIC CORP 09.05.79-JP-057756
Q42 (21.11.80) B01d-53/04 E03b-03/28
09.05.79 as 057756 (6pp26)
Device for producing a water from the water content of a gas e.g. air

in a desert district comprises two columns, with an adsorbing bed contained in each column, and switching valves for alternately performing the adsorbing and desorbing processes in both columns. The object is to control the valves according to measured wts of the water contained in both columns, so as to assure a high water prodn. efficiency.

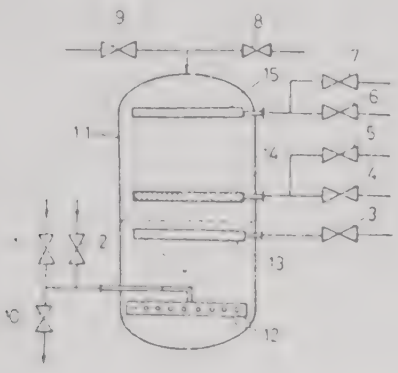
The novelty is that both columns are supported on a turnable horizontal bar supported by two springs at both ends so as to balance both columns at centre at a support point. A detector is coupled with the bar to detect the difference between the total wts. of both columns.

ADOB- ★ D15 06454 D/05 ★J5 5149-636
Device for dissolving solids in liq. at given concn. - esp. for dissolving calcium in water for prepn. of health drink
ADOBANSU KK 09.05.79-JP-056521
(21.11.80) B01f-01
09.05.79 as 056521 (3pp26)
A device for dissolving a solid substance such as calcium to form specified concn. in liq. such as water is claimed. A vessel is coaxially housed in a tubular casing for receiving water e.g. from a tap, and has through-holes bored through the side wall of the vessel to allow the solid substance to be dissolved by the water introduced into the vessel and to flow out after dissolution. Projections are formed at the inner surface of the casing to adjust the opening of the through-holes by turning.

The device is used for producing a health drink.

EBAR ★ D15 06467 D/05 ★J5 5149-652
Regenerating ion exchange resin - used to treat atomic power plant cooling water, by stirring in inorganic acid
EBARA MFG KK 10.05.79-JP-056376
K06 (21.11.80) B01j-49 G21f-09/12
10.05.79 as 056376 (6pp51)
A method of washing a cation exchange resin used in desalting cooling water circulating in an atomic power plant, comprises immersing the spent resin in an aq. soln. of inorganic acid, such as nitric acid, sulphuric acid or hydrochloric acid, and introducing air to effect stirring to wash the resin.

In the fig. a slurry of spent resin is supplied into a tower (11), and water is removed from a pipe (10). An aq. soln. of the inorganic acid is supplied from a pipe (13) into the tower to immerse the resin in the soln. Stirring air is introduced from a pipe (12) into the tower to wash the resin with the soln. The soln. is removed from the valve (10) and the resin is washed with water supplied through a valve (7).



EBAI ★ D15 06468 D/05 ★J5 5149-673
Compacting waste powder contg. heavy metals - by kneading with calcium cpd. in presence of solidification promoting or reducing agent, shaping and treating with water vapour
EBARA INFILCO KK 09.05.79-JP-056609
J01 P43 (21.11.80) B09b-03
09.05.79 as 056609 (4pp51)
Method comprises kneading waste powder with a calcium compound in the presence of a solidification promoting agent or a reducing agent, shaping the kneaded substance and treating the shaped substance with water vapour in an autoclave under pressure of 2 kgf/cm2 to solidify it.

The calcium compound is Ca carbonate, Ca oxide, Ca sulphate, Ca chloride, or Ca hydroxide. The solidification agent is diatomaceous earth, water glass, bentonite, zeolite, Al-oxide, or Al hydroxide. The reducing agent is a ferrous salt, sulphurous acid, sulphite, carbon black, or lignin.

Heavy metals are not dissolved out from the solidified substance. The powder is esp. ash by-produced in calcination of waste sludge or dust by-produced in treatment of a waste gas.

MITQ ★ D15 06469 D/05 ★J
Treating sulphide-contg. alkali waste liquor - by aera sulphur di:oxide contg. gas, reacting isolated sulp bi:sulphite, recycling to aeration stage, etc.
MITSUBISHI ELECTRIC CORP 08.05.79-JP-056001
E36 (21.11.80) C02f-01/20
08.05.79 as 056001 (6pp34)
Sulphide-contg. alkali waste liquor is aerated with SO2-cont (O2 concn. greater than 2%) while maintaining pH in a neutral range, e.g. 6.5-7.5, to neutralise Na2CO3 and NaHC convert sulphide into H2S or elementary S. Isolated S is rea HSO3- and converted to thiosulphate. H2S contained in the aeration is oxidised to SO2, and the SO2-contg. air is recycl aeration step. A portion of the SO2-contg. air is remo released to the outside atmos. as purified air after wash alkali. Treated effluent becomes transparent economically any formation of elementary S.

KURS ★ D15 06470 D/05 ★J
Processing effluent following activated sludge treatm filtration using PVA porous hollow fibre membrane
KURARAY KK 10.05.79-JP-057924
A88 J01 (21.11.80) C02f-01/44 C02f-09
10.05.79 as 057924 (3pp34)
Effluent treated with activated sludge is clarified, deodour reduced in BOD and COD value by filtering it with PVA-typ hollow fibre membrane having mean pore dia. of 0.01-0.5 and washing said membrane with acid, alkali or oxidising ag NaClO etc.

The PVA-type porous hollow fibres membrane used in this is disclosed in J52123385, J53031580 etc. By the use of this me over 90% of BOD components contained in the effluent are r and BOD value of permeated water is reduced to a few %.

The membrane has water permeability of 400 l/hr.m2. and thereby is

ts filtration operation energy is about 1/10 times tha ultrafiltration membrane. The membrane exhibits excelle alkali and chemicals- resistivity, and is easily regenerated agents.

MITN ★ D15 06472 D/05 ★J5
Removing copper content of waste waters - by addn. of phc contg. cpd. opt. together with iron or aluminium salt
MITSUBISHI GAS CHEM IND 11.05.79-JP-057706
(21.11.80) C02f-01/58
11.05.79 as 057706 (4pp34)
Cu is effectively removed by simple manner from wast contg. a large amt. of Cu-ammonia complex salt etc. by a water-soluble P cpd., e.g. H3PO4, prim., sec., or tert. phosph in amts. of greater than 0.03 mol., pref. greater than 0.1 mol. one g of Cu contained in the waste liquor. It may also be combination with a coagulant, e.g. Fe and Al salts, etc. The of the coagulant may be carried-out simultaneously w addition of the P cpd., or after the addition, and adjusting i neutral.

In an example, 20.0 g (1.37 mol/g-Cu) of Na2HPO4.12H2O i under agitation to one litre of ammoniacal waste liquor cor 39.8 ppm of Cu and 2.6 ppm of Zn, followed by complete diss The liquor is adjusted to a pH value of 6.58 and stirred for 3 under that state to form a sediment which is filtered off.

MITR ★ D15 06473 D/05 ★J5
Water treatment process - includes passage through tower with granular solid alkali and opt. binder
MITSUBISHI RAYON KK 08.05.79-JP-055972
(21.11.80) C02f-01/58
08.05.79 as 055972 (3pp34)
Substances capable of forming difficultly soluble salts with Ca(OH)2 soln e.g. PO4(3-), arsenic ions and heavy metal i removed from water by first passing through a tower pack granular solid alkali comprising Ca(OH)2, CaCO3 and opt. e.g. alumina, silica, MgO etc.

Ppte formed is sepd. in a filtration tower. The content of C in the granular solid alkali is pref. 20-95 wt.%, and the diss rate of solid alkali is delayed when the Ca(OH)2 content is le 20 wt.% and the strength (in water) of the solid alkali is lowere the Ca(OH)2 content is greater than 95 wt.%.

Granular solid alkali exhibits excellent structural stre water and an almost constant dissolving rate over a long when used in a tower in a packed state.

★ D15 06680 D/05 ★J5 5151-254
e ion selective electrode - with sensitive part comprising metal chalcogenide, e.g. copper or silver telluride or selenide
TSUSHITA ELEC IND KK 14.05.79-JP-058796
J04 (25.11.80) G01n-27/30
as 058796 (5pp945)
e ion-selective electrode contains a heavy metal chalcogenide pper or silver chalcogenide) in the sensitive part responsive ide ion.
electrode has simple structure and can determine high e ion concn. for long period. The electrode is useful for ining CN ions in river water, sewage, exhaust water from factory, etc.The electrode exhibits stable potential even in ge 1-0.1 M./1. CN concn.
example, a cuprous selenide disc having a polished mirror ensitive part) is fixed to the bottom of a synthetic resin r. Carbon may be mixed with the heavy metal chalcogenide s e.g. cuprous or cupric selenide or telluride or silver selenide ride.

★ D15 06877 D/05 ★J5 5152-501
ermeable cellulose ester membrane - obtd. by spreading soln. ulose ester and DMSO to form film and solidifying the film
IJIN KK 14.05.79-JP-057984
J01 (27.11.80) B01d-13 C08j-09/28
9 as 057984 (16pp42)
ipermeable membrane (I), is made of cellulose ester (II) and void fraction of 40-95%, (ii) water-permeating velocisty of 1- nl/sq.m.hr.mmHg), (iii) rejection ratio for low molecular cpd. 0-50%, (iv) rejection ratio for middle molecular cpd. (IV) of 0- and (v) rejection ratio for large molecular cpd. (V) of 50-100%.
s mfd. by spreading a soln. (VI) composed of 1 pts.wt. of se ester and 1-25 pts.wt. of DMSO to form a film and ying the film using a solidification agent (VII). Pref. (II) is se acetate, cellulose butylate, cellulose acetate butylate, se propionate, cellulose acetate propionate, cellulose acetate ate, and nitrocellulose. (VII) is non-solvent for (II), such as alcohol, ether.
er-permeating velocity of (I) is high, and (V) such as protein is ntly sepd. from a soln., using (I).

★ D15 06878 D/05 ★J5 5152-502
rane filtering element for reverse osmosis etc. - where pitch of ations on porous sheet is increased at longitudinal end for onnection
ICEL CHEM INDS LTD 12.05.79-JP-058321
(27.11.80) B01d-13
9 as 058321 (20pp26)
mbrane element used in a precision filtration, ultrafiltration, e osmotic sepn. etc. is claimed. The element consists of a sheet which is corrugated along the width like pleat to form quid passages at one side and filtrate passages at the other ith spacers. The object is to easily connect the elements end to d shape the element like a cylinder or hollow polyhedron.
element is so shaped that the filtrate passages open at the plane at one end (side end) of the sheet and that the pitch of ation is increased at each longitudinal end, i.e., the start and corrugation.

★ D15 06879 D/05 ★J5 5152-504
for treating liq. by reverse osmosis membrane - used to e potable water from sea water, treating waste waters and ntrating polymer soln.
IIKAWAJIMA-HARIMA HEAV 16.05.79-JP-059923
(27.11.80) B01d-13
9 as 059923 (4pp26)
comprises a reverse osmosis membrane housed in a casing, and circulating pump connected in series to form a ation circuit. The object is to reduce the running cost.
circulating circuit is provided with a lower and upper re limits setting switches and a feed pump is connected to this t through a check valve to separate this pump, which is d when the lower pressure limit switch operates, and stops he other switch operates.

★ D15 06880 D/05 ★J5 5152-505
y liq. separator, e.g. for desalination of sea water or brine - ises laminated flat separator modules arranged radially d rotary shaft, and combined with liq. feed and drain pipes
IIKAWAJIMA-HARIMA HEAV 16.05.79-JP-060093
(27.11.80) B01d-13
9 as 060093 (7pp26)
seperation comprises laminated flat separator modules ged radially around a rotary shaft and combined with liquid ipes, drain pipes, and collector for collecting a sepd. liquid component. The object is to reduce the energy loss during operation and assure a stable separation even in a high centrifugal field.
Each module comprises selectively permeable membranes laminated with spacers to form separation elements, between which closed spaces are formed along the length of the shaft to flow the raw liquid. An open space is formed in each element to drain a filtrate liq.

HITK ★ D15 06882 D/05 ★J5 5152-508
Sand scooper in sedimentation pond - with one end of conveyor beneath lower end of lower sprocket wheel of dust collector
HITACHI METAL KK 17.05.79-JP-060685
(27.11.80) B01d-21/18
17.05.79 as 060685 (3pp26)
Appts. for removing sand pptd. in the bottom of water sedimentation ponds of a water purifying plant is claimed. It comprises a dust collector for protection of a water pump for pumping of supernatert water from the pond and screw conveyor for scraping the sand.
Improvement is that the conveyor is disposed so that its one end is located beneath the lower end of a lower sprocket wheel of the dust to the axial centre of the pipe, until reaching a liquid feed chamber formed adjacent to the side wall of the gas feed pipe so as to communicate via the nozzle.

HITK ★ D15 06883 D/05 ★J5 5152-509
Sand excavator for removing pptd.- sand from sedimentation pond - in water purificn. plant, includes screw conveyor and dust collector for protecting a water pump
HITACHI METAL KK 17.05.79-JP-060686
(27.11.80) B01d-21/18
17.05.79 as 060686 (3pp26)
Excavator comprises a screw conveyer disposed on the bottom of the pond, and dust collector for protecting a water pump for pumping water from the pond. The collector comprises a lower and upper sprocket wheels with a turnable chain passing over these wheels, and a lattice vertically disposed along the chain. The lower sprocket wheel is located above the down stream of the conveyer. At the down stream side of the conveyer a sand pit is formed, in which a sand pump is located.
The lower sprocket wheel is prevented from being buried in the sand and assures stable sedimentation of the sand.

HITJ ★ D15 06884 D/05 ★J5 5152-510
Sedimentation pond sludge drain control appts. - by determn. of amt. of sludge by monitoring flow rate and turbidity of feed water and feed rate of coagulant added
HITACHI ENGINEERING KK(HITA) 18.05.79-JP-060384
(27.11.80) B01d-21/24
18.05.79 as 060384 (3pp26)
A device for controlling a valve for draining sludge pptd. in the bottom of a sedimentation pond is claimed. An agglomerant is poured into a raw liq. fed from a receiving pond into a mixing pond followed by a flock forming pond connected to the sedimentation pond. The optimal timing of sludge drain is determined based on the amt. of sludge actually pptd. The flow rate and turbidity of the raw water fed into the pond are measured. The amt. of pptd. sludge is calculated from the measured flow rate and turbidity plus the feed rate of agglomerant.

TORA ★ D15 06885 D/05 ★J5 5152-511
Device for sepg. fine solids from liq. e.g. waste water - has slidable brush located at rear of screen panel to effect cleaning
TORAY IND INC 17.05.79-JP-060865
(27.11.80) B01d-23/02
17.05.79 as 060865 (5pp26)
A device for separating a solid from a liquid such as waste waters contg. very fine solids including sludge passing through a biological membrane is claimed. The object is to reduce the water head between the liquid inlet and outlet of the device, thus use of feed pumps.
A water feeder is located above a screen panel inclined and housed in a screen chamber located above a reservoir tank. A slidable brush is located at the back side (lower side) of the screen panel to clean its surface. The distance between the raw water feed port of the feeder and drain port for draining the treated water is less than twice the length of the brush.

TEIJ ★ D15 06886 D/05 ★J5 5152-512
Ultrafiltration module comprising hollow tube membranes - produced by winding tape onto mandrel and coating inside with polymer
TEIJIN KK 15.05.79-JP-058655
J01 (27.11.80) B01d-31
15.05.79 as 058655 (10pp42)

The module (I) comprises ultrafiltration membrane tubes (dia. 3-9mm), within a case (III), outlet of the filtrate, outlet from (II) and inlet into (II) of the soln. (IV) to be treated, seal-material which seals between (II) and (III), and (III)-protecting material.

The cross-sectional area and the length (L1) of (III) are 1-200 sq. cm. and 3-60 cm. When the sum of the circumferences of (II) is L2' cm. and L2/L1 exceeds 1.65, (IV) permeates from the inside to the outside of (II). (II) is made by spirally rolling a tape of porous sheet around (II), and sealing both side of the tape. The strength of the porous sheet against stretching exceeds 2 Kg/cm, and the extension of the porous sheet at 2 Kg/cm of stretching stress is under 10%. Although (I) is made without use of support, (I) is resistant to high pressure.

Suitably (I) is made using a mandrel of dia. 3-9 mm. Both sides of the tape are sealed, a dope contg. organic polymer is coated inside the tube formed, and the polymer is solidified. The dope is applied by feeding it from inside a bob, and sliding the bob inside of the tube made by spirally rolling of the tape. The middle of the bob is concave so that the dope is retained between the tube and the concaved bob.

TEIJ ★ D15 06887 D/05 ★J5 5152-513
Tubular ultrafiltration membrane - prepd. by spirally winding porous tape around mandrel and solidifying polymer on inner wall of tube formed
TEIJIN KK 17.05.79-JP-059709
A88 J01 (27.11.80) B01d-13 B01d-31
17.05.79 as 059709 (9pp42)
Tubular ultrafiltration membrane (I) not contg. a pressure-resistant support is new. The inside dia. of (I) is 3-9 mm, and a porous tape (II) spirally rolls around (I) and (II)- laminating portion is sealed. The strength of (II) against stretching is higher than 2 Kg/cm, and the extension of (II) at 2 Kg/cm of stretching stress is smaller than 10%.

(I) is prepared by spirally rolling (II) around a mandrel of dia. 3-9 mm, sealing both side of (II), painting a dope contg. organic polymer inside of the tube of (II) formed, and solidifying the polymer.

Although (I) is made without use of pressure resistant support, it is resistant to high pressure.

MITQ ★ D15 06893 D/05 ★J5 5152-520
Appts. for producing water from moisture in air, esp. in desert areas - comprises column contg. adsorbent and provided with heater and condenser
MITSUBISHI ELECTRIC CORP 15.05.79-JP-059853
Q42 (27.11.80) B01d-53/04 E03b-03/28
15.05.79 as 059853 (6pp26)
Appts. comprises column containing an adsorbent, provided with a heater and condenser for desorbing the adsorbed water and condensing the desorbed water. The object is to easily detect the condition of adsorption of water in the bed.

A hydraulic cylinder is combined with the bed and another hydraulic cylinder is communicated with the first cylinder through a conduit. Detector for detecting the displacement of the second cylinder, depending on the weight of the bed is connected to an indicator.

KURS ★ D15 06903 D/05 ★J5 5152-532
Gas-liq. contact device e.g. for dissolving oxygen in water - comprises ejectors connected to gas feed pipe, for treating sewage and waste water
KURARAY KK 16.05.79-JP-060683
J02 (27.11.80) B01f-01 B01f-05/04
16.05.79 as 060683 (4pp26)
The device comprises ejectors connected to a gas feed pipe, through which the gas flows. The device is for treating sewage, waste waters, etc., contg. organic cpds. The object is to avoid clogging of very fine grains in the device, and to improve the dissolution of oxygen into water.

Each ejector comprises a straight short pipe having a nozzle, throat, and diffuser and passes through the gas feed pipe crosswise from waste waters with decreased amt. of sludge by (1) adding mineral acid to adjust its pH to 3-6' thereafter adding activated charcoal, cationic polymer coagulant and Al salt followed by adjusting its pH to 6-8 with alkali matter to form sediment which is then removed to give clarified liquor, (2) adding mineral acid to the clarified water obtd. to adjust its pH to 3-5, followed by adding Ca salt, e.g. CaCl2 etc. and Al salt' e.g. Al sulphate etc. and adjusting its pH to 6-8 with alkali matter to form sediment which is then removed to give clarified water.

The clarified water obtd. in the step (2) after the removal of the sediment may be further treated with activated charcoal.

KINZ- ★ D15 06907 D/05 ★J5
Contacting solid with liq. e.g. titanate with sea water - to adsorption of uranium, where granular beds are located at bo of slow flowing and fast flowing zones
KINZOKU KOGYO JIGYO 16.05.79-JP-059044
E31 J01 M25 (27.11.80) B01d-15 B01j-08/08 C22b-60/02
16.05.79 as 059044 (6pp26)
The process is effected using granular beds formed on hor areas, each divided into two zones by a rectifier plate: one fo flowing the liquid and the other for fast-flowing. The obje economically and effectively contact the solid with the utilising the Bernoulli's theorem to turn the liquid flow.

The novelty is that each granular bed is located at the boun both zones and the rectifier plate is inclined at the liquid inl passage, where the bed is formed, so that the liquid is turne the slow-flowing zone to the fast-flowing. The solid may be gr titanate for adsorbing uranium contained in the sea water.

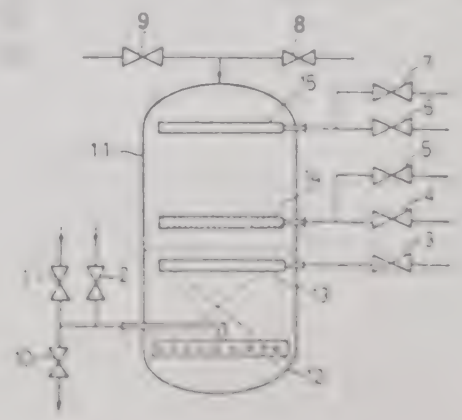
KINZ- ★ D15 06908 D/05 ★J5 5
Contacting solid e.g. titanate with liq. e.g. sea water - to adsorption of uranium, where natural flow of liq. is used to f the granular solid
KINZOKU KOGYO JIGYO 16.05.79-JP-059043
E31 J01 M25 (27.11.80) B01d-15/02 B01j-08/20 C22b-60/02
16.05.79 as 059043 (6pp26)
A method for contacting a solid with a liquid such as gr titanate for adsorbing uranium contained in the sea wa claimed. The process is effected using a staircase screen, on the solid grains are laid to form a thin bed. The object is to utili natural flow of the liquid for moving the grains smoothly contact.

The screen is slightly inclined from a horizontal bottom pl form an opening for receiving the flow of liquid' which is allo pass through the screen from the lower side to the upper s fluidise the solid grains. A weir is erected at each stair of the s to regulate the flow of grains.

MITO ★ D15 06914 D/05 ★J5 51
Adsorbing agent for recovering uranium and strontium fro water - obtd. by depositing magnesium hydroxide on active car
MITSUBISHI HEAVY IND KK 15.05.79-JP-059498
E31 J01 M25 (E33) (27.11.80) B01j-20/20
15.05.79 as 059498 (3pp51)
The agent is produced by immersing active carbon in a solutio magnesium salt,; stirring the soln. while adjusting its pH 9. thus producing Mg(OH)2 which deposits onto the active carbo drying the Mg(OH)2 deposited active carbon.

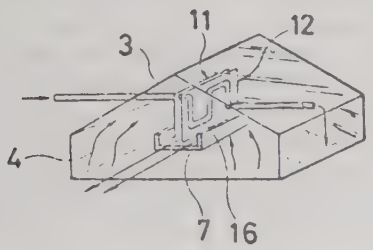
In an example 3g MgCl2.6H2O and 1g active carbon powder added to 1l distilled water. Aq. Mg(OH)2 soln. was added to the soln. heated at 70-80 deg.C to adjust its pH to 10. The soln. wa stirred at 50 rpm for 1 hour to deposit Mg(OH)2 on the active ca The resulting Mg(OH)2 deposited active carbon was dried deg.C for 2 hcurs.

EBAR ★ D15 06919 D/05 ★J5 51
Washing spent ion exchange resin - used to desalt water from a power plant, by immersing separated cation exchange re mineral acid and stirring with air
EBARA MFG KK 15.05.79-JP-058654
K06 (27.11.80) B01j-49 G21f-09/12
15.05.79 as 058654 (7pp51)
Method is provided for washing a mixed resin consisting of a exchanging resin and an anion exchanging resin used in des condensed water from an atomic power plant. Method com sepg. the mixed resin into an anion exchange resin and a exchange resin, immersing the sepd. cation exchange resin in acidic soln. of HCl, H2SO4 or HNO3, and introducing stirring ai the soln. to physically wash the resin therein. In the fig. 2, a slu the cation exchanging resin is supplied into a tank (11), and wa removed through a valve (10) from the tank to leave only the



The acidic soln. is supplied through a valve (3) into the tank se the resin in the soln. Stirring air is introduced through a) into the tank to wash the immersed resin with the soln.

r D15 06922 D/05 ★J5 5152-587
urificn. distn. appts. - has tent type structure of fluorine n to concentrate solar energy
ORIKAWA K 16.05.79-JP-060058
01 Q56 (27.11.80) B01d-03/02 C02f-01/14 C09k-03 F04j-03/02
as 060058 (4pp34)
ppts. for producing pure water from sea water, brine and waters, etc. by the action of solar heat, has a tent- or solar pe structure (part of) which is composed of a transparent nposed of a fluorine resin having formula (C2H4.C2F4)n, and g means (11) being provided in the inside of the housing.
bottom of the housing is provided a film of water less than 5 ck, from which water is evapd. at high efficiency due to ted steam being recycled in the inside of the housing with the air stream caused by convection of air. The steam ted from the water film does not reach to satd. steam e as it is instantaneously condensed in contact with the ade cooling means and formed into water droplets which dropped into collecting conduit (7).



★ D15 06923 D/05 ★J5 5152-588
ation filtration using aluminium-type flocculant - in which re formed at slightly acidic pH so that rise in pressure loss is

PON RENSUI KK 16.05.79-JP-060098
1.80) B01d-17/08 C02f-01/52
as 060098 (3pp34)
culation filtration process comprising adding Al-type ant to waters to be treated to form flocs and filtering the at high filtration rate for removal, the improvement ses carrying-out the formation of the flocs at pH 4.5-6.0 (4.8- hat rise in pressure loss is very little even when the filtration ied-out under high flow rate, and simultaneously amt. of ded solids to be collected is increased.
not necessary to adjust the pH value to neutral with alkali hen the water to be treated is lowered in pH value by addn. of ant. The filtration is carried-out at flow rate of greater than 20 han 35) cu.m/sq.m.hr.
Al-type flocculants are e.g. Al2(SO4)3, aluminium chloride, are prepd. by electrolysing metal Al in water to dissolved the

★ D15 06924 D/05 ★J5 5152-589
water purificn. with reduced sludge generation - by adding al acid, activated charcoal, cationic polymer coagulant and ium salt followed by adding alkali to form sediment
ACHI PLANT ENG CONST 17.05.79-JP-059758
11.80) C02f-01/52
as 059758 (3pp34)
tants, oil components and fluorine are effectively removed or comprising a turnable chain passing over the lower and sprocket wheels and small-meshed lattice vertically ing along the chain.
pptd. beneath the dust collector is easily scraped off.

★ D15 06925 D/05 ★J5 5152-590
ment of alkali washing waste liquor - used in deodorising gas hydrogen sulphide etc., by contacting with activated charcoal sence of oxygen
KYO SHIBAURA ELEC LTD 18.05.79-JP-061335
J01 (E19) (27.11.80) C02f-01/74
9 as 061335 (4pp34)
washing waste liquor, e.g. from deodorisation of odorous gas ntacting the gas contg. H2S, methylmercaptan, methyl de, etc. with aq. washing alkali soln., is effectively purified a small amt. of activated charcoal without any special ions, e.g. high temp. and elevated pressure, by contacting it xygen in the presence of the activated charcoal. In practice, it . to have more than 0.1wt.% of the activated charcoal in the liquor to be treated to effectively show its oxidising catalytic
The dissolved oxygen concn. of the waste liquor is pref. r than 0.5 ppm, esp. greater than 2 ppm. Odorous gas is not generated from the water thus treated even with a pH of 6.5-8.5, therefore the treated water is drained into rivers etc. without environmental contamination.

KURS ★ D15 06926 D/05 ★J5 5152-593
Treatment of waste water with activated sludge - with addn. of manganese sand and/or zeolite as sedimentation accelerator
KURARAY KK 14.05.79-JP-059472
(27.11.80) C02f-03/12
14.05.79 as 059472 (2pp34)
The improvement comprises adding as the sedimentation-accelerating agent of the activated sludge, Mn sand and/or Mn zeolite, so the sedimentation is accelerated. Mn sand or Mn zeolite is, e.g. prepd. by immersing sand or zeolite in aq. Mn salt soln., drying by heating, further immersing in aq. KMnO4 soln. drying, repeating the procedure and finally sintering.
The granular size of the Mn sand or zeolite is usually 0.1 micron to 0.1 mm, and the amt. of the Mn sand and/or zeolite is 10-200wt.%, pref. 10-100wt.% against the sludge of dried state. By adding the Mn sand and/or zeolite to the treating system, sedimentation-accelerating effect is kept over a long period without lowering microbial sludge decomposability, thereby MLSS of aeration vessel is kept high and installation cost is decreased.

AGEN ★ D15 06927 D/05 ★J5 5152-597
Treating waste water contg. organo-phosphorus cpds. - using activated sludge at Ph 5-7.5
AGENCY OF IND SCI TECH 16.05.79-JP-060896
(27.11.80) C02f-03/12
16.05.79 as 060896 (5pp34)
In treatment of waste waters contg. organo-P cpd. activated sludge, the improvement comprises carrying-out the treatment at a pH 5-7.5, so that the organic P cpd. are converted by degradation into inorganic P cpd. within short period without any lowering in degradation activity of bacteria contained in the activated sludge.
The pH adjustment is performed by addition of alkali, e.g. NaOH, ammonia, lime and KOH etc., the amt. of which is corresp. to H3PO4 and H2SO4 resulted in accordance with the biological degradation, but pref. performed by means of pH-adjusting appts. provided in aeration vessel. H3PO4 formed in the process is e.g. removed by coagulation sedimentation process or adsorption. Ca(OH)2 is used to form hydroxyapatite, alum or NaAlO2 is used to form Al phosphate, or ferric salt is used. In the adsorption treatment, alumina is used as the adsorbent.

NISH- ★ D15 06928 D/05 ★J5 5152-598
Removing nitrogen cpds. from water - by blending with water from nitrification process, reducing nitrate biochemically and removing ammonia by oxygen blowing
NISHIHARA KANKYO EI 16.05.79-JP-060850
(27.11.80) C02f-03/34
16.05.79 as 060850 (4pp34)
Organic material and nitrogen cpd. contained in polluted water, e.g. crude night soil etc. are biologically removed by (a) reducing NO3-N contained in a blended liquor comprising the polluted water to be treated and a water coming from nitrification step, by action of denitrification bacteria; (b) treating portion of the polluted water blend thus denitrified with nitrification bacteria to carry-out nitrification treatment, (c) recycling all of the polluted water blend thus nitrified to above denitrification step.
This is followed by (d) removing ammonia by oxygen blowing from a remaining portion of the denitrified water; and (e) introducing ammonia removed in the ammonia removing step into the nitrification step.
In this process, HNO3 is discharged to the outside of the system even without using denitrification vessels as all of the nitrified water is recycled to the denitrification step. It is not necessary to supply organic carbon source from the outside of the system for the denitrification.

TAKU- ★ D15 06929 D/05 ★J5 5152-600
Decolourising sepd. liquor from heat treatment of sewage - by adding ferric chloride and organic polymer flocculant, adjusting pH and treating with ozone or hypochlorite
TAKUMA KK 17.05.79-JP-061723
(27.11.80) C02f-09
17.05.79 as 061723 (3pp34)
Brown coloured treated liquor resulting from treating sepd. sewage sludge heat-treated liquor with activated sludge is effectively decolourised by treating FeCl3 (as inorganic flocculant) and organic polymer flocculant followed by adjusting its pH to about 7.0 to cause flocculation sedimentation; and treating with ozone or with hypochlorite in the presence of Ni peroxide.
By carrying-out the flocculation sedimentation treatment prior to the ozone oxidn. treatment, floating solids contained in the sepd. liquor are removed and thereby the amt. of ozone to be used is

reduced.

In an example, sepd. liquor resulted in heat treatment of sewage sludge was treated with activated sludge, after which the liquor is treated with 100 ppm of FeCl3 and 1 ppm of organic polymer coagulant at pH 7.0. The liquor was contacted with ozonised air at 15 deg.C.

TOKU D15 06784 Y/04 = J8 1000-081

Acids or alkalis selective sepn. from soln. - by diffusion dialysis using ion exchange resin membrane

TOKUYAMA SODA KK 09.06.75-JP-068539

*A91 J01 (06.01.81) *J51144-386 B01d-13*

09.06.75 as 068539 (5pp170)

Acids or alkalis are sepd. selectively from their solns. by means of diffusion dialysis using respectively anion or cation exchange resin membrane.

Ion exchange membrane contg. thermoplastic polymer is treated thermally, at greater than 40 deg.C but below the softening temp. of thermoplastic polymer, with a non-solvent. Pref. thermoplastic polymers are PVC, polyethylene, polypropylene, polystylene, polymethacrylic ester, polyvinylacetal, PVA, natural rubber, polyisobutylene etc. Water, NaOH, KOH, H2SO3, H3PO4, HCl, NaCl, benzene sulphonic acid, alkylamine etc. are used as the nonsolvent. The permeation rate of hydrogen and hydroxy ion is high. (J51144386).

MEID ★ D15 06994 D/05 ★J8 1000-084

Device for treating waste water - has sludge level detector

MEIDENSHA ELEC MFG KK 16.12.75-JP-150470

J01 (06.01.81) B01d-21 C02f-01/52

16.12.75 as 150470 (4pp26)

Device for treating waste water discharged from wet type dust collectors comprises a sludge level detector, which operates when the sludge level exceeds a threshold in an agglomerating sedimentation tank, to store sludge discharged from the tank in a sludge reservoir before dewatering. (J52073551)

AISE ★ D15 06995 D/05 ★J8 1000-085

Device for agglomerating suspended solids in waste water - has static stirrer

AISIN SEIKI KK 14.03.75-JP-031606

(06.01.81) B01d-21/ B01f-03/08*

14.03.75 as 031606 (4pp26)

Device for agglomerating suspended solids in waste water comprises inner tubes coaxially disposed in a casing. Each tube has notched openings at both upper and lower edges to form meandering water passages between an centre feed pipe and lower side drain of the casing to stir the water statically. (J51106267)

FJIE D15 71181 Y/40 = J8 1000-090

Waste gas or liquid treatment equipment - has post:treatment chamber and bypass pipe between chamber inlet and fan outlet

FUJI ELECTRIC CO LTD 19.11.75-JP-138999

*J01 M24 (06.01.81) *J52063-165 + B01d-53/34 B01j-19 C02f-01*

19.11.75 as 138999 (3pp26)

In appts. for treating waste gas or liq., from e.g. steel making plant, the gas or liq. is fed into the aftertreating device, treated there, passed through the damper and introduced into means, which consists of an intake fan, and fed into a chimney. The by-pass pipe is connected between the inlet of the after-treating device and outlet of the fan. The damper is controlled by a controller depending on the pressure difference across the by-pass pipe.

A detector for detecting the pressure difference between the inlet of the after-treating device and outlet of the introducing means is coupled to the damper to reduce the pressure difference. This eliminates the necessity for providing a damper in the by-pass pipe. (J52063165).

JAAT D15 80360 X/43 = J8 1000-105

Treatment waste water contg. ammoniacal nitrogen - by irradiating after conventional treatment to give prod. useful as industrial water

JAPAN ATOMIC ENERGY RES 06.03.75-JP-027480

*K08 (06.01.81) *J51102-348 + C02f-01/30*

06.03.75 as 027480 (5pp)

Process for effectively and easily treating a water contg. dissolved organic matters and ammoniacal nitrogen, incapable of being effectively treated according to a conventional waste water treating technique, by use of ionisable radiation comprises irradiating a secondary treated water of a sewage in the presence of oxygen under an alkali state.

The amts. of dissolved organic matters and ammoniacal nitrogen contained in the secondary treated water are decreased. The secondary treated water is simultaneously sterilised by the radiation so the formation of slime and algae in pipe system using the treated water as industrial water, is suppressed. (J51102348).

OJIP D15 17131 Y/10 = J8

Coagulation of a pulp waste liquor - by addn. of magnes aluminium salts which are recovered and recycled

OJI PAPER KK 14.07.75-JP-085258

*(06.01.81) *J52009-977 B01d-21/* + C02f-01/52*

14.07.75 as 085258 (6pp34)

Treatment comprises adding a Mg salt and an Al salt in ratio of greater than 2.0, calculated on oxides (MgO and A alter its pH to greater than 10 so as to ppte. by coagulation; s ppte. from the water and calcining at greater than 600 de suspending the calcined residue in water and treating with ar recover the Mg component as Mg ion and the Al component a followed by recycling of the coagulating agent.

Mg and Al components are recovered without loss, and without any discharge of sludge to the outside of the s (J52009977).

OJIP D15 56679 Y/32 = J8

Pulp waste water treatment without sludge discharge - by magnesium and aluminium salts, giving sulphur dioxide-abs liq. and salt regeneration

OJI PAPER KK 23.12.75-JP-152836

*E36 F09 J01 (06.01.81) *J52077-452 B01d-21/* + C02f-01/52*

23.12.75 as 152836 (5pp34)

The process comprises adding a Mg salt and an Al salt, MgO:Al2O3 molar ratio of above 2 (calcd. on the oxides) to the to adjust its pH to above 10 and carry-out coagulation pptn.; b the ppte. at high temp. to give a residue; suspending the resi water to give an absorption liquor which is then used for ren SO2 from waste gas in the pulp plant; oxidising the SO2- slurry, e.g. by aeration, to form MgSO4 and Al2(SO4)3; and r the MgSO4 and Al2(SO4)3, as the Mg salt and the Al salt in the step. (J52077452).

OJIP D15 56680 Y/32 = J8 10

Pulp waste water treatment without sludge discharge - by aluminium and calcium salts, giving sulphur dioxide-absorpti and salt regeneration

OJI PAPER KK 23.12.75-JP-152837

*E36 F09 J01 (06.01.81) *J52077-453 + C02f-01/52*

23.12.75 as 152837 (5pp34)

The processs comprises adding an Al salt-type coagulant water while adjusting its pH to 5-9 to carry-out coagulation adding a Ca cpd., e.g. CaCO3, Ca(OH)2, etc., to the ppte. and bu at high temp. to give a residue; suspending the residue in wa give an absorption liquor which is then used for removing SO2 waste gas; oxidising the SO2-contg. slurry, e.g. by aeration, to CaSO4-suspended slurry contg. dissolved Al2(SO4)4; filterin slurry to separate it into CaSO4 cake and an Al2(SO4)3 soln. fil and reusing the filtrate as the Al salt-type coagulant in the step. (J52077453)

OJIP D15 56681 Y/32 = J8 10

Pulp waste water treatment without sludge discharge - by a inorganic metal salt and calcium salt, giving sulphur dio absorption liq. and salt regeneration

OJI PAPER KK 23.12.75-JP-152838

*E36 F09 J01 (06.01.81) *J52077-454 + C02f-01/52*

23.12.75 as 152838 (8pp34)

The process comprises adding an inorg. metal salt-type coagu e.g. MgCl2, sodium aluminate, FeCl3, FeSO4, etc. and a Ca cpd. CaCO3, CaO, Ca(OH)2, etc., to adjust the water to pH above 1 effect coagulation pptn; burning the ppte. at a high temp. to g residue; suspending the residue in water to give an absorption l which is used for removing SO2 from waste gas; oxidising the contg. slurry to give a slurry contg. CaSO4 and a metal sul corresp. to the metal salt-type coagulant; filtering the slur separate it into a CaSO4 cake and a filtrate contg. the sulphate; and reusing the filtrate as the inorg. metal coagulant initial step. (J52077454)

SAIW D15 77598 X/42 = J8 100

Removing polyvinyl alcohol from waste water with boric ac borax - with reuse of water in textile sizing, and reuse of pol borate cpd in textile sizing, adhesives, and treating paper fibres

SANDO IRON WORKS KK (SAND) 28.05.75-JP-063837

*A35 F06 G03 (A14 A87 A97 F09) (06.01.81) *BE-842-227 C02f- D06l-01/14 D06m-11*

28.05.75 as 063837 (4pp-)

Waste water contg. polyvinyl alcohol, is treated by addn. of acid or borax at pH 8-10 in presence of an inorganic salt, Na2SO4, to separate the polyvinyl alcohol in the form of a cpd. boric acid; the regenerated water can be used again several tim

The treated water can be used in sizing textiles. The poly alcohol-boric acid cpd. is pure and colurless. (J51146758)

D15 73140 X/39 = J8 1000-112

aste liquor treatment - removing lignin, hemicellulose and fibres using nitrohumic acid

TAN KK (NITT) 12.02.75-JP-017673

*F09 (06.01.81) *J51092-566 B01d-21/* + C02f-01/54*

as 017673 (2pp-)

lp waste liquor is subjected to a purifying treatment by nitrohumic acid followed by adjusting its pH from 7 to 2. Opt. r-soluble multi-valent metal salt (such as a sulphate, nitrate, e and organic acid salt of Fe, Mg, Sn, Zn, Ca and Al, etc) an organic base such as trimethylamine, ethylenediamine lyethyleneimine etc. are added, followed by adjusting pH to 2, to cohere dissolved and suspended matter. (J51092566)

D15 08443 Y/05 = J8 1000-113

val of dust from waste gas treated water - by adding bentonite water soluble cationic organic polymer to separate suspended by cohesion

PPON STEEL CORP 11.06.75-JP-069703

*J01 M24 (06.01.81) *J51146-762 + B01d-21/* C02f-01/56*

5 as 069703 (4pp34)

e water contg. converter dust (originating from contacting with waste gas from a converter) are added bentonite and a soluble cationic organic polymer to separate by cohesion ded matters. The water-soluble cationic organic polymers g. a cation modified polyacrylamide (mol.wt.: from hundreds sands to a few millions), an aminoalkylester of (meth)acrylic nd its salts etc.

er thus treated is conducted into rivers without any pollution the fact that the remaining amt. of suspended matter is very compared with that in conventional art where agent is used, norganic cohesive agent or anionic cohesive may be reused as ollecting water. Pptd. sludge can be used as a water remover. 6762)

D15 26476 X/15 = J8 1000-114

ving formaldehyde from waste water - using alkali and gen peroxide, water contg alkali being heated prior to peroxide on

UTSCHE GOLD & SILBER 26.09.74-FR-032527

*7 (06.01.81) *BE-833-837 + C02f-01/72*

5 as 114359 (5pp-)

cess for eliminating formaldehyde from waste water by ng with hydrogen peroxide in the presence of an alkali at 10-35 starting temp. is described. The waste water contg. alkali is eated to at least 50 deg.C before adding the peroxide. Pref. the ne earth) with metal hydroxides.

hydrogen peroxide requirement is 10-35% of that originally ed. (J51061174)

D15 04465 Y/03 = J8 1000-115

olic waste water treatment to reduce the COD - using bacteria Pseudomonas and Acinetobactor genera

IRARAY KK 23.05.75-JP-061556

*4 (D16) (06.01.81) *J51138-061 + C02f-03/34 C12r-01/38*

5 as 061556 (4pp34)

cess for removing by decomposition a COD component from a hed multi-valent alcohol-contg. waste water resulting from the of a petrochemical prod. comprises adding bacteria(s) ging to the Pseudomonas genus and bacteria(s) belong to the tobactorgenus gp. to an activated sludge prior to the ment.

branched multi-valent alcohol has 5-10 C, 3-5 hydroxy radicals or 2 tert. - or quaternary-carbon. The N- and P-components to ded are 2-10 (ammonium sulphate and urea etc.) and 0.5-5 PO4), resp. per 100 grams of the COD component, The process performed at 20 to 37 deg.C, for 24 hrs., with a bacteria concn. o 8000 ppm; MLSS concentration of 200 to 15000 ppm; pH is 6 to

COD content if alcohol was reduced by at least 90%. ntional appts. without any modification may be used. 8061)

D15 71243 X/38 = J8 1000-117

ing waste water from acetaldehyde mfr by Wacker process - to ve chlorinated aldehydes using ion exchange and biochemical npsn

TSUBISHI CHEM IND KK 31.01.75-JP-013120

*7 (06.01.81) *J51088-861 + C02f-03/12 C02f-09*

5 as 013120 (4pp-)

ss for treating waste water from the prodn. of acetoaldehyde idising ethylene with oxygen, in which the water contg. nated aldehydes is (1) contacted with Fe metal to form FeCl2 cetoaldehyde, (2) the liq. from (1) is passed to a stripping tower which acetoaldehyde is distilled-off by use of steam, (3) the greater portion of FeCl2-contg. waste water discharged from the bottom of the stripping tower is contacted with a cation- exchange resin to adsorb Fe ions, (4) the Fe ion-adsorbed cation- exchange resin is regenerated with HCl.

The process further comprises (5) the aq. FeCl2 soln. obtd. from step (4) is oxidised to aq. FeCl3 soln., (6) the liq. from step (3) and a portion of the FeCl2-contg. waste water discharged from the bottom of the stripping tower in step (2) are subjected to biochemical decompsn. to give solid matter which is sepd. by settling, and (7) the FeCl3 obtd. in step (5) is added to a conc. liquor of the solid matter from step (6) followed by a solid-liq. sepn. process. (J51088861)

YAWA D15 10365 Y/06 = J8 1000-118

Treatment of plating waste liquor contg. phenol sulphonic acid - involves alkaline neutralisation, oxidn., addn. of aq. ammonia and biological treatment

NIPPON STEEL CORP 18.06.75-JP-074047

*E14 M11 (06.01.81) *J51150-867 + C02f-03/12 C02f-09*

18.06.75 as 074047 (6pp34)

The treatment involves alkaline neutralising, oxidising with an oxygen-contg. gas to form a ppte. which is removed, blending the neutralised treated liquor thus obtd. with aq. ammonia (from a coke oven battery), followed by subjecting to biological treatment.

By this process, the phenol sulphonic acid-contg. plating waste liquor (discharged from an electrical tin plate-producing plant) is subjected simply to a tin-recovering treatment and to a heavy metals-removing treatment.

COD components contained in the waste liquor are also completely removed by treating together with the aq. ammonia, in an activated sludge installation. (J51150867)

GONS/ ★ D15 07047 D/05 ★RD-201-018

Coated polyimide membranes, esp. for desalination - prepd. by coating with cellulose tri:acetate soln. in polyimide-incompatible solvent, e.g. tri:chloroethylene

GONS H 20.12.80-RD-201018

*A88 J01 (A11 A26) (10.01.81) B01d-00/**

20.12.80 as ------ (-pp903)

Coated polyimide membranes, esp. useful for desalination are prepd. by coating a conventional polyimide asymmetric ultrafiltration using a soln. of cellulose acetate in a solvent which is incompatible with the support, e.g. CHF3.

Solns. of CA-triacetate (Eastman CA 438-855) in CHF3 are brought into contact with a polyimide support by pouring into the tubular support system. After the required contact time, the soln. is drawn off and coagulation carried out by immersing the membrane in demineralised water at 20 deg. C at an angle of 90 deg. A soln CA concn. 0.5% gave flux 15.8 l/sq. m.hr. and retention 96.0% with a contact time of 2 mins. Exactly the same figures were obtd. when the contact time was 15 secs., showing that these properties are independent of contact time and confirming the incompatibility of solvent and support (test conditions were: 4,000 ppm NaCl, 4,000 KPa and 25 deg.C).

TUMC/ ★ D15 07181 D/05 ★SU-737-017

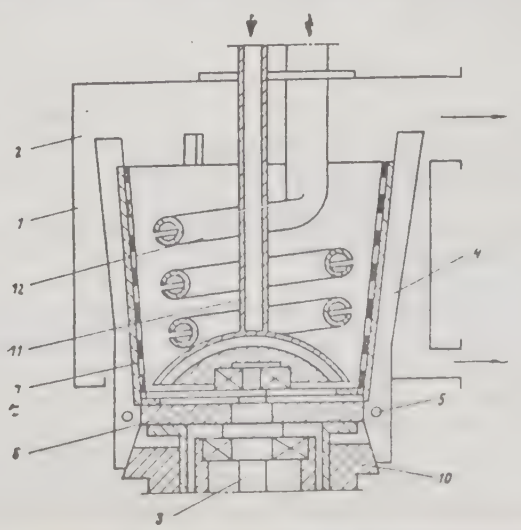
Continuous action centrifugal separator for suspensions - has trapezoidal section cover pieces on tiltable stanchions supporting non-rigid filtering partition

TUMCHENOK V I 06.12.76-SU-427483

J01 P41 (30.05.80) B04b-03

06.12.76 as 427483 (3pp135)

Improved efficiency and reliability is claimed in continuous action centrifugal filtering separator for suspensions as used in various industrial branches, and esp. in effluent water purification. The non-rigid filtering partition of the rotor is supported by tiltable stanchions on whose edges, adjoining the filter, are mounted cover pieces, trapezoidal in section and containing transverse grooves for the filtrate. The cover pieces increase the area of support for the



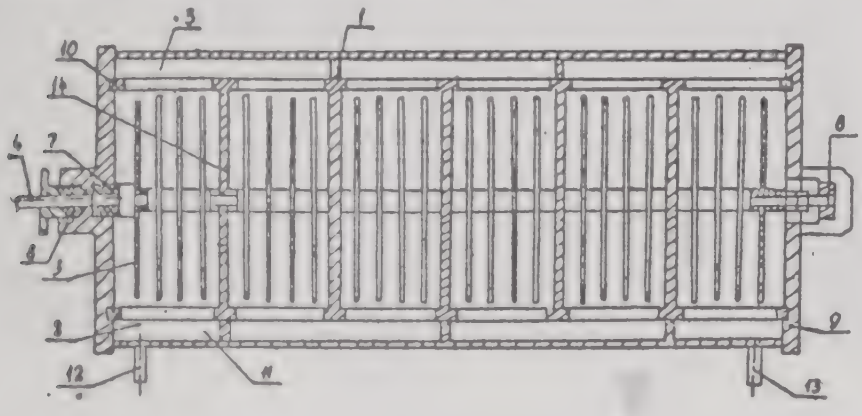
filtering partition, which increases its durability. The stanchions are hinge-mounted on the base of the rotor and their shanks are contacted by conical bushing which is periodically moved axially to shake the stanchions together with supported filtering partition. Bul. 20/30.5.80.

WATE = ★ D15 07272 D/05 ★SU-737-360
Purification of industrial effluents for reuse or discharge - using three-chamber processing tank having sediment and purified water cells formed by horizontal partitions under flotation chamber
WATER SUPPLY INST 22.12.77-SU-558072
P41 (05.06.80) B03d-01 C02b-01/20
22.12.77 as 558072 (5pp135)
Improved quality of purification of industrial effluents for their re-use or discharge into the reservoir with, at the same time, reduced water content of the precipitated sludge, is claimed. The processing tank is separated by horizontal partitions into three chambers: flocculation, clarification, and flotation; the latter, containing circulation tubes with openings in their walls and foam skimmer with its driving mechanism, is in its bottom section equipped with horizontal partitions which form separate cells for the sediment and for purified water. Vertical tubes pass through the purified water cell, which connect the sediment cell with the flotation chamber. Bul. 20/30.5.80.

INZP ★ D15 07273 D/05 ★SU-737-361
Removal of magnesium from sulphite cellulose spent lye - includes two/stage treatment of oxidised filtrate with lime for simultaneous removal of organic impurity
INST ZELLSTOFF & PAPIER 21.08.72-SU-821045
F09 (02.06.80) C02c-05/04
21.08.72 as 821045 (2pp114)
Treatment of sulphite cellulose spent lye contg. Mg includes oxidn. at 200-250 deg.C and 20-50 kg/sq.cm. pressure and removal of solid prods. from filtrate.

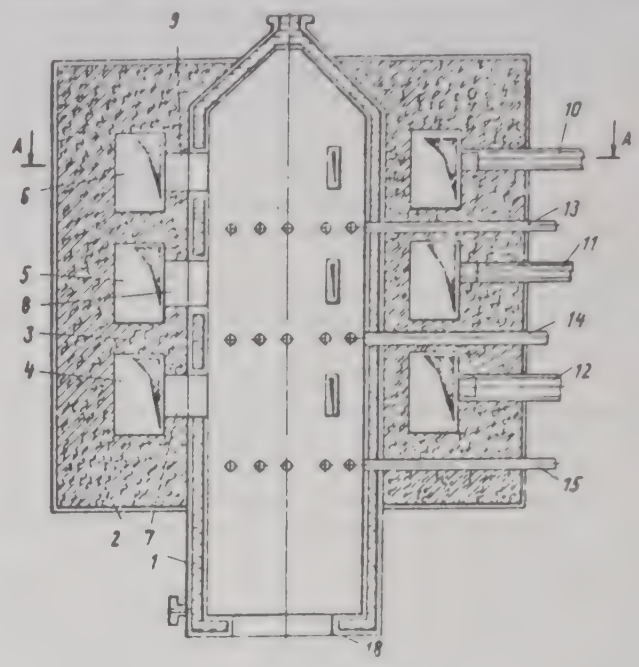
For quantitative removal of Mg from filtrate with simultaneous removal of organic impurities, two-stage treatment with lime (viz. at pH 10.6-10.9 and pH 11.2-11.7 respectively) is used. The sediment is removed after the first stage.

EIGE/ ★ D15 07274 D/05 ★SU-737-362
Biochemical removal of organic substances from petroleum effluents - using compartmented apparatus with discs forming biochemical film which reacts with oxygen
EIGENSON A S 06.01.77-SU-440950
H05 (05.06.80) C02c-05/10
06.01.77 as 440950 (4pp29)
Method for biochemical purification of effluents to remove organic substances, for use in the petroleum-refining industry (among others), in which the effluent is contacted with a biological film in the presence of an oxygen-contg. gas in an apparatus with rotating discs partially submerged in the effluent. The clean water is subsequently separated from the film. Degree of purification is increased by adding a cationic polyelectrolyte to the effluent prior to it being processed, in an amount equivalent to 1.0-5.0 mg./litre.



KUIB = ★ D15 07456 D/05 ★SU-737-710
Cyclone furnace for heat treatment of industrial effluent - has combustion chamber in form of annular cavities and tangential channels
KUIBYSHEVAZOT COABN 01.12.77-SU-549453
Q73 (05.06.80) F23g-07/04
01.12.77 as 549453 (4pp18)
The furnace comprises a combustion chamber for fuel with burners, air-cooled cylindrical working chamber with jet belts in it to supply the waste fluids, and a constriction. For improved efficiency, the combustion chamber is in the form of a row of annular cavities round the working chamber and channels connected to them at a tangent to a circle 0.5-1.0 of the dia of the chamber, with secondary-air nozzles at a tangent to the outer surface of the annular cavity. The number of annular cavities corresponds to the number of jet mechanisms.

The design of the furnace enables optimum combustion cor to be created for each form of waste supplied to the furna mutual influence of the combustion zones on the temp., the de swirl and excess of air are reduced since there is less axial the gaseous prods. entering each zone in turn, creating conditi uniform distribution of temp. up the height of the chamber, si input of fresh heat-carrier takes place practically all the way chamber. The swirl is even for the same reason. Bul.20/30.5.80



ANIS D15 02088 A/02 = SU-7
Agglomerating mercury particles esp. in aq. effluent - by subj the liquor to the action of a magnetic field
ANIC SPA 02.07.76-IT-024984
*J01 P41 (05.06.80) *BE-856-388 C02c-05*
01.07.77 as 499306 (2pp)
Particles of Hg are agglomerated in a fluid medium by subje the particles to the action of a magnetic field. Process is use sepg. Hg from an air or aq. medium. It is used partic. in pur process in which the Hg cpds. are separated from the bath by e
The metal halide of the bath may be one or several alkali(ne e halide(s). The catalyst metal, which is added, may be in the forn metal oxide, or chloride, for example FeCl3, CrCl3 CuCl or C pref. CuCl or CuCl2. Process reduces pollution problems us caused by the formation of dust from which the Cl fraction has removed, which is also costly. Bul.20/30.5.80.

UNVO ★ D15 07511 D/05 ★US 424
Two stage mechanical dewatering of sewage sludge - with pre applied first to moving then to static sludge
UOP INC 09.07.79-US-055569 (08.03.77-US-775673)
C04 P28 P71 (13.01.81) A47j-19/02 B30b-09/02
09.07.79 as 055569 C.i.p. 4098006, 4193206, 4121349, 4128946, 416 4099336 (+7.7.77(2), 20.10.77, 8.12.77, 29.3.78, 25.5.78
Sewage sludge is mechanically dewatered in a two stage proce the first stage it passes through a zone which has a cylind porous wall within which it is pressurized by a rotating screw blade of the screw is spaced from the porous wall by 0.08 to 5.0 c layer of filter media comprised of fibres from the feed strea maintained in the annular space between the screw and the Water is withdrawn radially through the porous wall and lay filter media.

A solids stream is withdrawn from the first stage and is pass the second stage where it is compressed by a pressure greater 500 psi. The pressure is applied while the stream is in contact w porous surface relative to which it is immobile. Further wat expelled and the second solids stream is withdrawn.

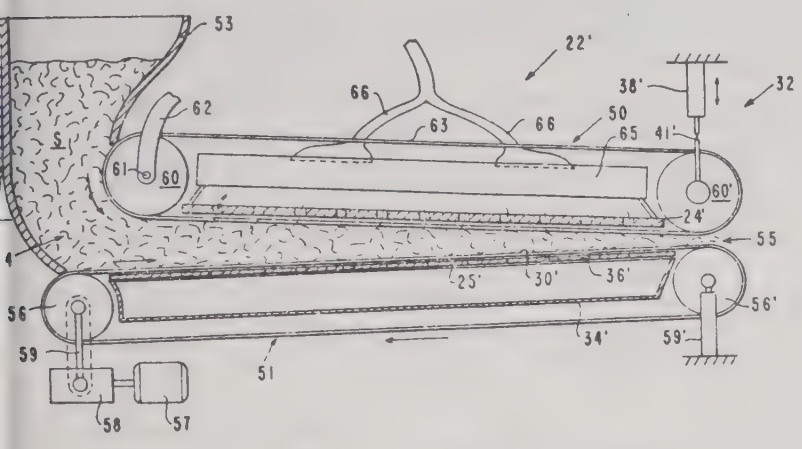
The process is used to dewater a primary or secondary sev sludge. Pref. the feed stream comprises at least 75 wt.% w while the first dewatered stream comprises 40 wt.% solids, an second stream at least 55 wt.% solids.

ALKU D15 86295 B/48 = US 424
Electrolytic removal of metal ions using fluidised bed - of cat particles and partial recirculation of soln. contg. ions
AKZO NV 24.05.78-NL-005607
*M28 X25 (13.01.81) *EP---5-580 C25c-07 + C25c-01*
22.05.79 as 041307 (7pp1358)
Metal ions are removed from solution for recovery or l purification by passing the solution upwardly through a partic cathode bed to fluidise the bed, recirculating part of the solution discharging the remainder, and passing anolyte through the a compartment separated by a diaphragm.

Recirculated solution is passed through a vented gas sepa

s a dividing surface with gas bubble openings. The solution
l under the surface and its level is held above the surface,
ated liquid discharged from above the surface. A liquid
s maintained in the top of the cathode compartment with a
tion through which a cathode rod passes with small
e.

★ D15 07624 D/05 ★US 4244-804
us for sludge dewatering - with material providing
ation of sludge boundary layer contacting electrode
OVA INC 15.01.79-US-003538
C04 J01 (X25) (13.01.81) B01d-13/02
as 003538 (9pp295)
omprises t electrodes connected to a source of e.m.f. During
nt the sludge is held between the electrodes. A layer of cloth,
estos or polyester provides a continuation of the boundary
the sludge between the electrodes. It is in intimate contact
e of the electrodes, and allows passage of water through it.
ous electrical contact between the electrodes is ensured by
the electrodes closer together as the volume of the sludge
es due to water removal.
. is used to dry slimes and sludges which are initially
le of being dewatered by subjecting them to ambient air. In
it may be used to dewater phosphate slime produced during
r mfr. The resulting prod. can subsequently be further dried
sure to ambient air.



D15 63354 Y/36 = US 4244-815
c biological purification of fluid wastes - by intensive
ation in tank contg. very high concn. of microorganisms
ISEARCH LTD 27.02.76-AU-005025
*01.81) *DE2708-026 C02f-03/20*
9 as 009970 (+17.2.77-US-769730) (5pp1376)
aste is aerobically purified by introducing the waste into a
ontg. a high biomass liq., withdrawing part of the liq. from the
ase and recirculating it through an aeration to create a vortex
tank and a spray head which sprays the liq. onto the vortex.
idge produced is concentrated and a portion is re-cycled.
. the biomass concn. is 10000 to 100000 mg/l. A foaming agent
st oxygenation is pref. added to the liq. Process is efficient and

D15 37787 B/20 = US 4244-817
ermeable membrane prodn. for reverse osmosis and
ltration - by contacting poly:amine membrane on porous
rt with a poly:cyclic di:isocyanate
PPON ZEON CO LTD 14.09.77-JP-110999
*3 J01 (13.01.81) *J54043-882 B01d-13 + C02f-01/44*
78 as 941563 (11pp974)

Semipermeable membranes are prepd. by contacting a thin polyamine film applied to a liq.-permeable microporous substrate with a polyalicyclic aliisocyanate or polyalicyclic dicarbonyl halide capable of reacting with the amino or imino gps. in the polyamine to crosslink it at the surface.

Pref. the solvent of the soln. has a solubility parameter of 6.9-8.7. Pref. the polyamine is polyethyleneimine or a polyether polyamine. Pref. the cross-linking agent is a polyalicyclic diisocyanate.

The membranes are suitable for reverse osmosis and ultrafiltration.

SIMC D15 79430 B/44 = US 4244-818
Removal of metallic impurities from sewage sludge - by dissolution with aq. acid and oxidising agent, and sepn. of impurity-contg. liquids
SIMONCARVES LTD 15.04.78-GB-014901
*C03 (D13) (13.01.81) *EP---5-011 + C02f-01/52*
27.03.79 as 024453 (4pp965)
Removal of metallic impurities from sewage sludge comprises acidifying it to pH 1-1.5 (pref. with HCl) in the presence of an oxidising agent, holding the acidifed sludge for a sufficient length of time (pref. 1-2 hrs.) to maximise the amt. of impurity taken into soln. and adding a flocculating agent. The sludge is then thickened by removal of a large part of it's liq. contg. the metallic impurities. The removed liq. is replaced by aq. liq. free of metallic impurities. Further liq. is then removed from the sludge. Pref. the liq. is removed by sedimentation or drainage. Pref. oxidising agent is H_2O_2 or air.

The treated sludge may be dumped or used as an animal feed.

GELM- D15 84675 B/47 = US 4244-820
Filter element for cross-flow filtration - has layered construction with flow channel between impervious sheet and permeable membrane
GELMAN INSTRUMENT C 16.05.78-US-906499
*J01 (13.01.81) *GB2020-570 B01d-31*
16.05.78 as 906499 (12pp1376)
Cross-flow filter element consists of a pleated cylinder formed from a composite sheet having a flexible impervious outer layer and a selectively permeable membrane inner layer which are spaced to form a fluid flow channel. The membrane is sealed to end caps at each end and fluids sepd. from the flow are removed from the centre of the cylinder.

Pref. the flow in the channel is turbulent. The space between the outer and inner layers may contain a perforated fabric.

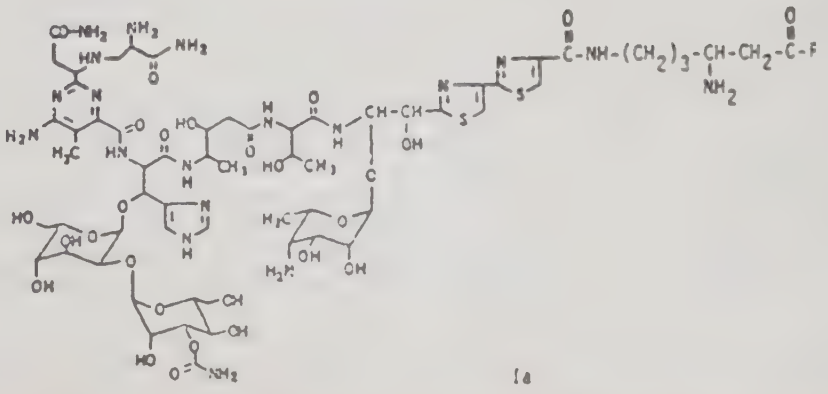
High membrane surface ratio is provided.

RAIT/ ★ D15 07771 D/05 ★ZA 7805-821
Regeneration of strong cation exchange resins - with a sulphur di:oxide contg. regeneration soln. contg. calcium ions when polyvalent cations have to be eluted
RAITER R 17.10.78-ZA-005821
J01 P43 (06.12.79) B08b C07c

See Also
D22 J5 5151502

D16: FERMENTATION INDUSTRY

★ D16 05741 D/05 ★BE -884-291
icrobial and antitumour tallysomycin derivs. - prepd. by
nting streptoalloteichus hindustanus in presence of amine
ISTOL MYERS CO 13.07.79-US-057528
3 C02 (12.01.81) A61k C07d C12p
30 as 884291 (43pp1251)
somycin derivs. of formula (I) and their pharmaceutically
table acid addn. salts are new. Q is NH.(CH2)3.CH(NH2).
OR or R'. R is NH-(CH2)3-R or NH(CH2)4-NH2. R is amino,
)2+, NHCH2CH2OH, N(CH2CH2OH)2, monomethylamino or 1-
thyl. R' is R or also NH(CH2)2NH2, NHCH2.CHOH.CH2.NH2,
H2)2NH.CH2.CHOH(CH3) NH(CH2)3-N(CH3)2,
H2)2.NH.CH2CH2OH, NH(CH2)3-A where A is morpholino or 2-
ylpiperidino.



(I) are useful as antimicrobials (against bacteria and fungi) and as antitumour agents (e.g. against P388 lymphocytic leukaemia,

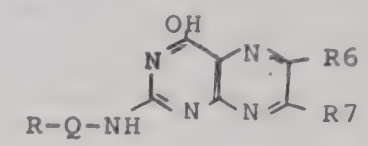
REGC ★ D16 05762 D/05 ★BE -885-196
DNA transfer vectors contg. codes for human insulin precursors - used to transform microorganisms for insulin prodn.
UNIV OF CALIFORNIA 12.09.79-US-075192
B04 (31.12.80) C07g C12n
11.09.80 as 885196 (50pp1251)
DNA transfer vectors contg. a sequence which codes for human pre-proinsulin (PPI) or for human proinsulin (PI) are new. The sequence of deoxynucleotide residues in these vectors is specified. Also new are (a) microorganisms transformed by these vectors; (b) the plasmids pcHI-1 and pcHP-1; (c) microorganisms, esp. E.coli HB-101, transformed by these plasmids; (d) a fused protein haveing a PPI sequence at the C-terminus and a fragment of procaryotic protein at the N-terminus.
Microorganisms contg. these vectors can be used to prepare insulin.

NEME/ ★ D16 05770 D/05 ★BE -885-229
Mfg. compost by decomposing organic waste in mechanised silo - which conveyor and compacts with min. wear of moving parts
NEMETZ H 30.11.79-DE-948176 (15.09.79-DE-937390)
(31.12.80) C05f C12m
15.09.80 as 885229 (26pp448)
Process and mechanised silo is for decomposing and/or drying organic waste material. The silo is of the type which is supplied with waste in bulk. The waste is advanced through a silo reaction chamber for aeration, deaeration heating, etc., being retained for a period necessary for decomposition, generally about 10 days in all.
The reaction chamber is now formed as a tunnel. Equal batches of waste are introduced at regular intervals at one end of the tunnel. Each batch in turn is advanced further into the tunnel to make room for the next batch. The newly introduced batch pushes preceding batches as it advanced, the compacted, unified mass sliding on its base along the floor of the tunnel.
Equal batches of processed compost are periodically discharged at the outlet end of the tunnel. Two or more tunnels can be superimposed, a gravity transfer of periodic batches taking place from the upper to the lower tunnel.
Used for drying and/or decomposition of organic waste partic. for the mfr. of compost. The cycle can be arranged to ensure complete decomposition. The necessary conveying and compacting motions are effected with min. mechanical effort. Wear on moving parts is reduced to a min. Optimum use is made of oxygen.

BIOT- ★ D16 05800 D/05 ★DE 2924-868
Increasing antibiotic prodn. in fermentation - os myxococcus fulvus DSM 1368, by limiting oxygen supply to restrict exponential growth phase
GES BIOTECHNO FORSC 20.06.79-DE-924868 (00.00.78-DE-838542)
B04 (22.01.81) A61k-35/74 C12n-01/20 C12p-01/04
20.06.79 as 924868 (12pp280)
In an improved process for the proliferation of Myxococcus fulvus DSM 1368 under submerged aerobic conditions in an aqueous nutrient medium contg. C,N,S andmineral salts, (a) in an optional first stage no substance necessary for growth is limited, and (b) in a second stage no substance necessary for growth, except oxygen, is limited.
Used in the prodn. of an antibiotic of empirical formula C25H33N3O3S2. Limitation of oxygen supply increases the yield of valuable metabolic products such as the above-mentioned antibiotic.

TOXN ★ D16 05971 D/05 ★DE 3024-915
Microbial creatinase enzyme prodn. - by cultivation of a strain of the genus Bacillus, esp. Bacillus sp. B-0618, in clinical diagnosis
TOYO JOZO KK 04.07.79-JP-085260
B04 (22.01.81) C12n-01/20 C12n-09/54
01.07.80 as 024915 (19pp280)
Culture, morphological and physiological properties of the preferred Bacillus sp., B-0618 (FERM-P 4049) are given in the specification. It is differentiated from the similar species B. badius, B. freudenreichii and B. macroides. The cultivation is pref. carried out under submerged aerobic conditions, suitably at 26-33 deg.C., generally for 15-25 hrs. Creatinase is contained in the cells and can be isolated by usual procedures.
Creatinase (EC 3.5.3.3.) is a creatine amidino hydrolase which catalyses the hydrolysis of creatine to urea and sarcosine. It is useful e.g. as an enzymatic reagent in clinical diagnosis (e.g. in combination with sarcosine oxidase for serum or urine creatinine deten., or alone for creatininase determn.

DAII- ★ D16 05979 D/05 ★DE
2-Amino-4-hydroxy-pteridine derivs. - useful for radioimm of pterin cpds.
DAIICHI RADIOISOTOP 11.01.80-JP-001884
B02 S03 (22.01.81) C07d-475/04 G01n-33/56
03.07.80 as 025226 (32pp367)
2-(R-Q-NH)-4-hydroxy-6-R6-7-R7-pteridine derivs. of formu new. In (I) R is hydroxyphenyl, radioiodinated bydrox tyraminocarbonyl, radioiodinated tyraminocarbon proteinocarbonyl gp. or COOH; Q is 1-6C alkylene; R6 and R 1-6C alkyl or 1-6C hydroxyalkyl.
(I) are useful for radioimmunoassay of pterins (e.g. biopte radioiodinated cpds. as tracers and the protein derivs. for prodn.



(I)

BOEF D16 41664 V/23 =DS
Macromol. cpds bound to insol support - by means of a coval to a polymeric substance which is impregnating a molecular
BOEHRINGER MANNHEIM GMBH 08.12.72-DE-260184
*A96 B04 (22.01.81) *BE-807-713 C08f-289*
08.12.72 as 260184 (5pp260)
A biologically active, macromolecular cpd. A is reacted wit B contg. (a) at least one function able to couple with A and (b) one polymerisable function. A molecular sieve material added, which has a degree of cross-linking allowing exclusio macromolecular cpd. when in the unswelled stat polymerisable gps. of the coupled cpd. AB is polymerised on or in presence of further copolymerisable and/or polyme promoting cpds.
Carriers contg. on their surface covalently bound biol active macromolecular cpds. are obtd. by a more efficient p which causes less inactivation of the active compound and higher concentration of this cpd. in the surface of the carri known processes. (DS)

RZVE- D16 77558 B/43 =DS
Antigenic peptide complexes - useful as diagnostic age bacterial and fungal infections etc., vaccines and immunity t factors
R & Z VERMOGENSVERW 12.04.78-DE-815758
*A97 B04 J04 (22.01.81) *DE2815-758 A61k-37/02 C07g-07*
12.04.78 as 815758 (7pp913)
Peptide complexes are obtd. from DNA-contg. organisms homogenising the organisms and/or their parts in na denatured condition in 0.2m phosphate buffer, (b) centrifug homogenisate, (c) stirring the supernatant with phosphate laden DEAE cellulose and loading it into a column, (d) elut loaded UEAE-cellulose with 0.2m phosphate buffer until the has an extinction of less than 0.1 at 280 nm, further eluting wi acetic acid-acetate soln. at pH 3.2 until the eluate again extinction of less than 0.1 at 280 nm, then eluting with 3% NaCl 0.1m acetic acid-acetate soln. at pH 3.2, recovering the ribo proteide fraction (RNP) sepd. with the NaCl-front in the dialysing it against water, concentrating and lyophilising.
Further the lyophilised, water-soluble RNP is either (1) with phenol, heated at 95-100 deg.C, cooled and centrifuged fo sepn., the phenol phase treated with water, back-extracte ether, and the aq. residue lyophilised, or (II) subjected t voltage electrophoresis and the peptide complex i conventionally, or (III) thin-layer chromatographed to separ peptide complex.
Process is used to produce antigens which are suffi chemically definable, exceptionally pure and compatib diagnostic, therapeutic and prophylatic use.(DS)

ALKU D16 75366 C/43 =DS
Alcohol removal from fermented drinks - by dialysis differential pressure
AKZO GMBH 15.06.79-DE-924283
*(22.01.81) *BE-883-829 + C12c-11 C12g-03/08*
15.06.79 as 924283 (4pp068)
Fermented drink such as beer, wine or champagne, is produc a reduced alcohol content. The fermented liquor is passed dialysis membrane, along the other side of which is flo dialysate liq. with a difference in pressure of less than 0.5 b pref. less than 0.1 bar. Alcohol passes through the membran pref. has low permeability for molecules with a molecul greater than 100.
The dialysate liq. is pref. a fermented liq. with an alcohol less than 0.5 vol.% as produced by the process as this h

passage of cpds. other than alochol through the membrane. pressure difference also helps to prevent passage of CO2. ohol in the dialysate liquor can be removed by adsorption, ion reverse osmosis and/or distillation and the liquor d.
rink produced is suitable for diabetics and drivers of motor s.

★ D16 06002 D/05 ★EP --22-138
aeration loop reactor - with coaxial guide cylinder for ing gas filled with sharp chips of metal or plastics
EMAP AG 09.07.79-EP-200378
01.81) C12m-01/08
as 200378 (10pp39) (G) FR2357488 FR2229451 FR-469300 BE-US1727601 FR-569304 DS-500703 FR2406664 FR1578295 E(AT FR IT)
reactor for the aeration of liquids, esp. for the aerobic growth roorganisms, consists of a bubble column with a coaxial guide er. The gas is introduced at the cylinder bottom and the er is packed with sharp-edged chips of metal or plastic.
cylinder can be subdivided by horizontal screens or ated plates into several compartments..
a loop reactor achieves a better utilisation of the gas (oxygen) r bioreactions. The filling doubles the oxygen transfer rate.

D16 02228 D/03 =EP --22-206
lly pure alpha-amino-heterocyclyl-acetic acid derivs. - prepd. ating corresp. racemic ester with immobilised proteolytic e in 2-phase medium
YER AG 07.07.79-DE-927534
*(14.01.81) *DE2927-534 C07d-209/20 C07d-261/08 C07d-277/30 d-307/54 C12p-17/02 + C07d-213/55*
0 as 103501 (25pp280) (C) NO-CITNS. E(AT BE CH DE FR GB NL SE)
lly pure amino acid derivs. of the formula (I) are new:

4N-C'HR1-COR2 (I)

' has either D- or L- configuration;
n opt. unsatd. opt. substd. heterocyclic residue contg. 1-4 O,S N, and to which a benzene ring may be fused;
H, 1-4C alkoxy or -N(R5)2;
d R4 are H, acyl, or 2-4C alkenyl substd. by 1-4C carbonyl; and
H or 1-4C alkyl)..
optically active cpds. (I) are useful as intermediates for aceuticals, esp. optically pure acylated beta-lactam otics.

D16 03727 D/04 =EP --22-242
g vector contg. semi-synthetic gene - for expressing a ptide, esp. human growth hormone
NENTECH INC 05.07.79-US-055126
*(14.01.81) *BE-884-012 + C12n-15 C12p-21/02*
0 as 103748 (33pp1251) (E) NO-CITNS. E(AT NL SE)
ing vector (A) which is able to express a specific polypeptide known aminoacid sequence when a gene coding for (I) is orated under control of a promoter, is made by obtaining a agment (II) of a gene coding for a sequence other than (I) by e transcription of messenger RNA. (II) contains a substantial n of the sequence for coding (I) and if it includes codons for acid sequences other than those required in (I) these are ed.
or more fragments coding for the rest of the (I) sequence are esised, at least one including the N-terminal code, and these troduced together with (II) into an appropriate reading- phase g vector, esp. a bacterial plasmid.
terial plasmids able to express human growth hormone (HGH) t prodn. of a conjugated foreign protein, and transformed ia contg. such plasmids are also new..
H is useful for treating hypopituitary dwarfism, diffuse gastric ng, pseudoarthritis burns, cicatrisation, dystrophy and lidation of bones. It can now be prepd. on a large scale; the ource currently is the hypophysis from human corpses.

★ D16 06066 D/05 ★EP --22-341
ncing growth of acid-producing bacteria in culture media - by ion of insoluble neutralising agent at start of culture
ATE OF OREGON 28.06.79-US-052960
3 (D13) (14.01.81) C12n-01
0 as 302184 (31pp1248) (E) NO-CITNS. E(AT BE CH DE FR GB LU NL SE)
th of a micro-organism which produces a substance (I) which nts or hinders the continued growth of the micro- organism is effected in aq. nutrient medium contg. a water-insol. agent (II) capable of removing at least some (I)..
The procedure is simple and economic; and when (I) is an acidic prod. and (II) is an insoluble neutralising agent, the need for addn. of neutralising agents during fermentation is avoided. The procedure is esp. useful in the prodn. of lactic acid, propionic acid or acetic acid for use in foodstuffs, beverages and in animal feeds, etc.

CIBA D16 00129 D/01 =EP --22-425
Cultures of Myxococcus fulvus and its extracts - with antibacterial activity against Gram positive species
CIBA GEIGY AG (GBFB-CIBA) 13.06.79-DE-924006
*B04 (14.01.81) *DE2924-006 A61k-35/74 C07g-11 C12p-01/04 C12p-21*
12.06.80 as 810195 (25pp1251) (G) NO-CITNS. E(AT BE CH DE FR GB IT LI LU NL SE)
(A) The culture broth obtd. by submerged, aerobic cultivation of Myxococcus fulvus DSM 1525 on an aq. medium contg. C and N sources and mineral salts at 15-40, pref. 25-35, deg. C is new
(B) Also new are prods. obtd. by extracting (a) the harvested cells with a mixt. of water and polar organic solvent (I), or (b) the sepd. culture liq. with a polar organic solvent (II) having limited miscibility with water. Mixts. of active ingredients obtd. from the extracts by treatment with anion exchanger, chromatography on alumina, then freeze-drying are also claimed.
These mixts. can be resolved into 3 individual components all with mol. wt. 1100 or less and all contg. a peptide fragment with Arg:Ala:Val ratio 1:2:3..
The active ingredients are antibacterials effective against Gram-positive species, e.g. the mixt. has MIC (microg per ml) of Bacillus subtilis and Staph. aureus 1; E. coli K12 and Pseudomonas fluorescens 30; Schizosaccharomyces pombe about 250.

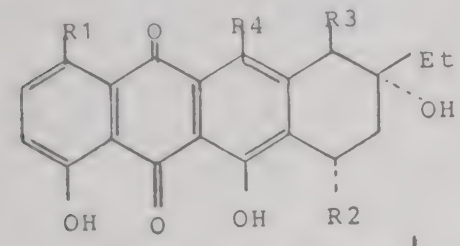
LKBP ★ D16 06108 D/05 ★EP --22-432
Bio:luminescent determn. of creatine kinase activity - in presence of adenylate kinase, by adding sufficient AMP to suppress the effects of adenylate kinase
LKB-PRODUKTER AB 04.07.79-SE-005852
B04 (14.01.81) C12q-01/50
17.06.80 as 850093 (16pp916) (E) GB1163409 GB2005830 US4097338 US4001088 US4080265 7.Jnl.Ref E(BE DE FR GB NL)
Creatine kinase activity (I) in a sample, e.g. serum, is determined by contacting the sample with ADP, creatine phosphate and a bioluminescence reagent having a stable light emission based on firefly X3C-CH2-CHX'-CHMe2 (II)

and sulphamethoxazole The rate of light emission gives a measure of (I). AMP is added sufficient to inhibit the effects of adenylate kinase activity without affecting the light emission..
The process is used in the determination of the B-subunit of creatine kinase which is more cardial specific than total available highly alkaline aq. sulphonamide kinase.

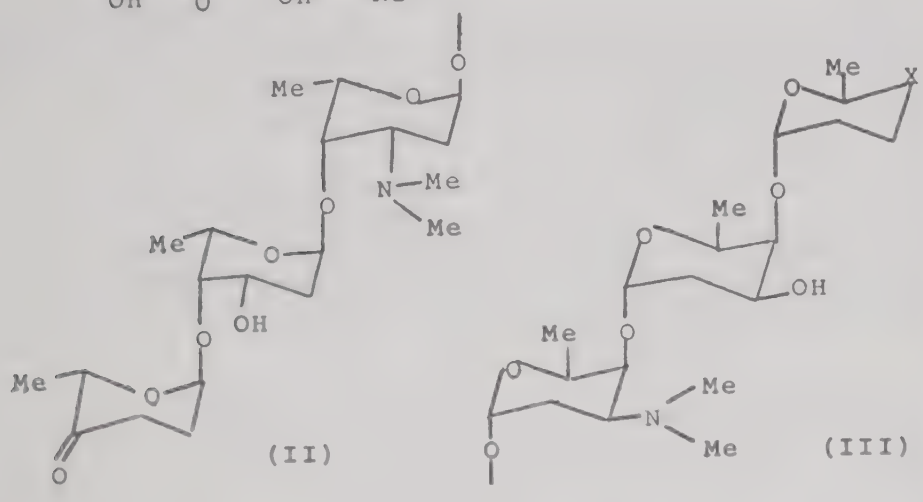
BROD/ ★ D16 06110 D/05 ★EP --22-434
Catalyst for prodn. or transformation of natural prods. - comprises bio:catalysts of higher plant cell origin immobilised in polymer
BRODELIUS P 27.06.79-SE-005615
A97 B04 (14.01.81) C12n-11/02 C12p-01
26.06.80 as 850105 (21pp914) (E) NO-CITNS. E(AT BE CH DE FR GB IT LI LU NL SE)
Catalyst for prodn. or transformation of natural prods. originating from higher plants comprises particles of a pref. porous polymer in the pores or network of which are entrapped and/or absorbed and/or covalently bound biocatalysts, or particles of crosslinked biocatalysts, the biocatalysts being whole cells, protoplasts, protoplasts with regenerated cell walls, hybrid cells or cell complexes isolated from higher plants or from cell cultures of higher plants, pref. callus or suspension cultures.
Pref. the polymer is a polysaccharide (esp. alginate or carragheenan), an acrylic polymer or a crosslinked polyamine (pref. a protein such as albumin, collagen or gelatin)..
The catalyst is used in continuous or discontinuous processes for the prodn. of natural prods. by de novo synthesis or by partial synthesis from precursors, or for transformation of natural prods. Examples include (a) hydroxylation of digitoxin to digoxin using immobilised cells of Digitalis lanata; (b) synthesis of anthraquinones using immobilised cells of Morinda citrifoliar under hormone-limiting conditions; and (c) synthesis of ajmalicine, serpentine, vincristine and vinblastine using immobilised cells of Catharanthus roseus. The catalyst can also be used in cloning work, i.e. developing cell lines having special props.
The immobilised catalyst does not have to be sepd. from the prod., and can be re-used. It is suited to flow-through processes. In many cases the immobilised cells produce much larger amts. of desired prod. per cell than do cells under the same conditions in free

suspension.

SAOC ★ D16 06181 D/05 ★EP --22-574
Rhodomycin Gp. antibiotics from anthracyclinone(s) - useful as antitumour agents with relatively low toxicity
SANRAKU OCEAN 13.07.79-JP-089552
B03 (21.01.81) A61k-31/70 C07h-15/24 C12p-19/56
11.07.80 as 104020 (44pp1248) (E) FR2403350 US4039736 FR2362157 FR2347381 FR2279413 EP--12159 2.Jnl.Ref E(OE FR GB IT)
The following rhodomycin gp. antibiotics and their acid addn. salts are new: epsilon-rhodomycin RDC; epsilon-isorhodomycin RDC; beta-rhodomycin RDC; gamma-rhodomycin RDC; gamma-rhodomycin RDRs; and beta-pyrromycin RDC. (R is rhodosamine; U is 2-deoxyfucose; C is cinerulose; and Rs is rhodinose).
These antibiotics are of formula (I):
(R1, R2, R3 and R4 represent respectively H, a gp. of formula (II), COOMe and OH; OH, a gp. of formula (II), COOMe and OH; H, a gp. of formula (II), OH and OH; H, H, a gp. of formula (IIIa) and OH; H, H, a gp. of formula (IIIb) and OH; and OH, a gp. of formula (II), OH and H).
For (IIIa) X is =O and for (IIIb) X is -OH..
Cpds. (I) are potent antitumour agents with low toxicity compared with adriamycin (they have LD50 values of 28-85.5 mg./kg. intravenously in mice, compared with 14.2 for adriamycin).



(I)



ORTH ★ D16 06231 D/05 ★EP --22-669
Rapid detection of antigens on human erythrocytes - by testing for agglutination with reduced, alkylated IGG, esp. for rhesus D antigen
ORTHO DIAGNOSTICS 09.06.80-US-155322 (13.07.79-US-057481)
B04 S03 (S05) (21.01.81) G01n-33/80
11.07.80 as 302359 (+05.10.79-US-082199) (29pp1251) (E) US3880988 US3579627 DE2636616 2.Jnl.Ref E(CH DE FR GB IT LI NL SE)
Red blood cells are rapidly tested for the presence of antigens O, C, c, E, e or K by mixing them with an antibody reagent (A) and, without incubation, examining them for agglutination. (A) comprises reduced S-alkylated IgG antibody against the appropriate antigen which at least meets FDA standards for potency and specificity.
The reagent pref. has pH 7.5-8.3 and total protein content 6-10 wt.%. Pref., except for antigen K, the test is carried out on a slide which has been pre-warmed to 40-45 deg. C before adding (A).
The reagents themselves are also claimed..
The method is esp. useful for detecting the rhesus D antigen, including the weak Du forms.
The method is rapid, uses a reagent of low protein content and has no nonspecific agglutination with IgG coated cells.

ORTH ★ D16 06232 D/05 ★EP --22-670
Automatic counting of specific lymphocyte types - by selective labelling with antibody having fluorescent marker
ORTHO DIAGNOSTICS 13.07.79-US-057482
B04 S03 T05 P31 (S05) (21.01.81) A61b-05/14 G01n-15 G01n-21/64 G01n-33/50
11.07.80 as 302360 (25pp1251) (E) NO-CITNS. E(BE DE FR GB IT NL SE)
Lymphocytes of a selected subclass are automatically identified and counted by first selectively labelling these cells with an antibody (AB) giving a particular fluorescence when excited. The erythrocytes in the sample are lysed, then the sample pass cell at a time, through a region of focused light, which fluorescence in AB. The emitted and scattered light is detect the particular cells are identified on the basis of fluorescence
Pref. anticoagulated whole blood, given no other processi separated buffy coat layer are used as sample. The metho used for T-lymphocytes, using an argon-ion laser for excitatio
An appts. for this process is also claimed..
The method is esp. useful for diagnosing T-cell imbalances occur in juvenile rheumatoid arthritis and certain leukaemia
Sepn. of lymphocytes from other cells is not necessary, method is more rapid than known procedures, and avoids erro to artifacts or loss of lymphocytes from the sample.

INSP ★ D16 06237 D/05 ★EP
Vectors for transfer of genes in eukaryotic cells - contg. DNA homologous counterpart in such cells
INST PASTEUR 08.06.79-FR-014806
B04 (21.01.81) C12n-15
09.06.80 as 400828 (22pp367) (F) 10Jnl.Ref E(BE CH DE GB IT L
New vectors contain a foreign DNA (I) whose normal counter at least certain types of eukaryotic cells is a homologous ge coding for a protein which is homologous to the protein specif (I). When such eukaryotic cells are deficient in (II), this deficie capable of being complemented by (I) after introduction of the cells..
The vectors can be used to transform eukaryotic cells with coding for various useful products, e.g. somatostatin, lyso hepatitis antigen or viral thymidine kinase (TK).

LKBP ★ D16 06275 D/05 ★EP
Bio:luminescent method for determining creative kinase - presence of ATP, uses additional AMP to reduce ATP concn. adding bio:luminescence reagent
LKB PRODUKTER AB 12.07.79-SE-006066
B04 (21.01.81) C12q-01/50
17.06.80 as 850094 (15pp916) (E) US4080265 GB2026156 GB2 GB1163409 US3423290 US4001088 5.Jnl.Ref E(BE DE FR GB NL
Creatine kinase is determined in the presence of ATP by first a AMP to reduce the concn. of ATP and then adding ADP, cr phosphate and a bioluminescense reagent based on firefly luci and D-luciferin. The light emission is then measured as a funct time. An adenylate kinase inhibitor may also be added, su diadenosine pentaphosphate..
Creatine kinase determinations are used for screening for m diseases such as Duchenne muscular dystrophy in humans a porcine stress syndrome in pigs. The present process ha advantage that the incubation time for decomposing ATP is re from about 20 hr. to 15 min. and the effects of adenylate kina suppressed. The procedure is both quick and simple and the sa does not need any special treatment.

TOXN ★ D16 06286 D/05 ★FR 24
Amino-glycoside antibiotics G-367-1 and G-367-2 - prepa cultivation of Dactylosporangium thailanoense, are esp. against Gram positive bacteria
TOYO JOZO KK 16.08.79-JP-104770 (04.04.79-JP-041274)
B04 (B03) (05.12.80) A61k-35/74 C12p-19/50
03.04.80 as 007574 (21pp395)
ino-glycoside antibiotics G-367-1 and G-367-2 prepared by cultiv of Dactylosporangium thailandense G-367 FERM-P 4840 are The cpds. have the following properties, the values for G-367-1 given first:- (1) m.pt. 130-133 deg.C; 151-155 deg.C; (2) (Alpha)24 188.0 deg. (C is 1.0 in water); + 159.8 deg. (C is 1.0 in wate Analysis (theoretical values in parentheses) C 50.14% (50.51 7.60% (7.84%), N 14.42% (14.73%); C 50.41% (50.99%), H 7.92% (8. N 15.16% (15.64%); (4) m.wt. 475; 447 (measured by mass spectr molecular formula C20H37N508; C19H37N507; (6) neither cpd. g characteristic max. absorption peak at 220-360 , only sh terminal absorption; (7) Infra-red and NMR spectra are give both cpds.; (8) both cpds. are soluble in water and methano insoluble in acetone, benzene, ethyl acetate and chloroform; (9 give a positive ninhydrin test and decolourise pota permanganate; both give negative results Elson-Morgan and tests; (10) both cpds. are white solids of basic nature which form addition salts.
Antibiotics are esp. active against gram negative bacteria an used usually in the form of their salts for the treatment of bac infections and sterilisation and disinfection of materials surgical apparatus.

D16 06313 D/05 ★FR 2453-199
ycocyanine dye from cyanophyceous algae - by treatment
ium ions and extn. into alkali (J5 12.11.80)
FRANCAIS DU PETROLE 06.04.79-FR-009120
(05.12.80) C09b-61
s 009120 (16pp520)
e dye phycocyanine (I) is extracted from Cyanophyceous
sp. Spirulina by first contacting the fresh algae with an aq.
ntg. calcium ions. The aq. phase and the algal mass (II) are
d (II) is contacted with aq. alkaline soln. The resultant aq.
sepd. and contains (I). Aq. phase may be subjected to
ration and drying' either by spraying or by lyophilisation.
left after removal of (I) may be dried and extracted with a
anic solvent. The solvent contains carotenoids (III) and this
y be dried. (III) is separable into (i) beta carotene and free
hylls, and the other part (ii) into glycosidal xanthophylls.
suitable for use in foods, pharmaceuticals' and cosmetics.
cess is rapid and highly selective.

★ D16 D/05 ★IT 1048-265
stable microbial product prepn.
IN SOC RICERCHE 31.12.73-IT-070910
1.80) C12n

★ D16 D/05 ★IT 1048-394
s prodn.
O AUSILIARI BASI 07.01.72-IT-067044
1.80) C12p

★ D16 D/05 ★IT 1048-434
concn. of alcoholic solns. - in particular wines of low alcohol

IDI P 17.06.72-IT-003462
1.80) C12g

★ D16 06614 D/05 ★J5 5150-892
mycetes strain Grifola frondosa var tokachiana - used to
culture with maitake flavour from which anticancer
echaride can be extracted
PON TENSAI SEITO KK 15 05.79-JP-058685
P13 (D13) (25.11.80) A01g-01/04 A23l-01/28 C12n-01/14 C12r-
4
as 058685 (10pp5)
asidiomycetes strain, Grifola frondosa var tokachiana is
ted into an artificial culture medium and cultured to form its
dy (sic).
strain is aerobic and has optimum growth temp. at 25-28
The strain is designated as FERM-P 4979. When it is cultured
deg.C in the artificial culture medium composed of saw dust,
bran and soy bean lees for 1-2 months, it forms a fruit body
hich is delicious and has a flavour specific to maitake. The
ial body is obtained by culturing it in liq. culture medium at
-6.0 at 20-30 deg.C for 15-40 days and by extracting it, a
ccharide with anticancer activity can be obtd.

★ D16 06615 D/05 ★J5 5150-893
bacter simplex microbes - used to produce androstane cpds.
sterol(s) without addn. of oxidn. inhibitor prevent prod.
position
TSUBISHI CHEM IND KK 11.05.79-JP-057863
(25.11.80) C12n-01/20 C12n-15 C12p-33/16 C12r-01/06
9 as 057863 (8pp5)
oes capable of forming androstane cpds. from sterols, partic.
stan-1,4-diene-3,17-dione, are claimed which do not require the
of oxidn. inhibitors to prevent the decomposition of the formed
stane cpds. The microbes are cultured at 20-40 deg.C (pref. 30
at pH 5-9 (pref. 6-8) for at least 15 days.
mples of the microbial mutants are Arthrobacter Simplex
803 (FERM-P 4261) and A. Simplex MCI-0804 (FERM-P 4298)
are derived from the parent strain A. Simplex IAM 1660
h treatment with N-methyl-N'-nitro-N-nitrosoguanidine and
diation, respectively.

★ D16 D/05 ★J5 5150-896
protease
FFMANN-LA ROCHE AG 10.05.79-GB-016193
4 (25.11.80)

AJIN ★ D16 06616 D/05 ★J5 5150-899
Fermentative prepn. of 5-prime-inosinic acid - useful as seasoning, by culturing Cornybacterium bacteria
AJINOMOTO KK 14.05.79-JP-058997
B02 E11 (D13) (25.11.80) C12p-19/32 C12r-01/15
14.05.79 as 058997 (4pp5)
Process comprises culturing a bacteria of genus Corynebacterium, which shows a requirement for adenine and a resistance to decoinin and sulpha drug, and recovering 5'-inosinic acid accumulated in the culture medium. Prod. is useful as seasoning.

The mutants are derived from parent strains of Corynebacterium equi AJ 1723 and C. sp. AJ1562 by treatment with N-methyl-N'- nitro-N-nitrosoguanidine, e.g. C. equi AJ11347 (FERM-P 4968) (adenine-req.), Aj11348 (FERM-P 4969) (adenine-req., decoinin- resistant), AJ11349 (FERM-P 4970) (adenine-req., sulpha drug- resistant), etc.

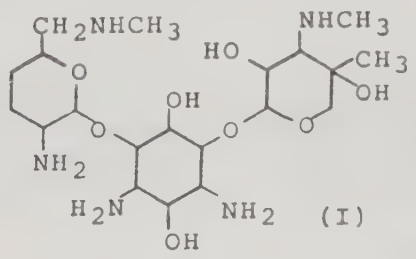
NIKO- ★ D16 06682 D/05 ★J5 5151-263
Determn. of physiologically active substance - by sepg. a complex of physiological substance and labelled substance from unreacted labelled substance using diffusion velocity
NIPPON KOTAI KENKYU 15.05.79-JP-059388
A96 B04 (25.11.80) G01n-33/54
15.05.79 as 059388 (5pp50)
An immunobiochemical method for determining physiologically active substance comprises sepg. a complex matter of physiological substance formed by immunobiochemical reaction and a labelled substance (e.g. antigen, antibody or hapten labelled by radioactive isotope, enzyme or fluorescent substance) from unreacted labelled substance by utilising the difference in the diffusion velocity in agar gel' agarose gel or polyacrylamide gel between the complex matter and the unreacted labelled substance.

Sepn. of the complex matter and unreacted labelled substance can be simply and easily carried out, and large amount of sample can be treated. The method has excellent sensitivity, accuracy' specificity, simpleness and rapidness.

In agar gel, etc., unreacted labelled substance diffuses rapidly, but the complex matter hardly diffuses remaining on the gel. The gel concn. is pref. about 0.7-1.0 wt.% when the mol. wt. of labelled substance is less than 90 x 10 power 4 and that of the complex matter more than 200 x 10 power 4.

KYOW ★ D16 06758 D/05 ★J5 5151-597
Antibiotic and antimicrobial 2-hydroxy:sagamycin prepn. - by conversion of streptamine by micromonospora sp.
KYOWA HAKKO KOGYO KK 11.05.79-JP-058312
B03 (26.11.80) A61k-31/71 C07h-15/22 C12p-19/50 C12r-01/26
11.05.79 as 058312 (8pp69)
2-Hydroxysagamycin of formula (I) and its acid adduct salts are new. (I) is prepd. by culturing Micromonospora able to convert Streptamine into 2-hydroxysagamycin in a culture medium contg. Streptamine to accumulate 2-hydroxysagamycin in the culture mixt. and then separating it out.

(I) has excellent antimicrobial activity against a wide range of gram-positive and gram-negative bacteria and known antibiotic-resistant Staphyloccocus aureus, Ascherichia coli and Seratia marucesscence etc. (I) is also useful as antiseptic for glass instruments and appts. in laboratories.



(I)

DOWC D16 81075 Y/45 = J8 1000-029
Lipase compsn. for glycerol ester determn. - contg. lipases from Rhizopus arrhizus and Candida cylindracea
DOW CHEMICAL CO 01.06.76-US-691932
*B04 S03 S05 (D13) (06.01.81) *US4056-442 C12p-07/64 C12q-01/44 C12r-01/72 + C12n-09/20*
01.06.77 as 064590 (6pp476)
A compsn. useful for the hydrolysis of a glycerolester in an aq. medium comprises a mixt. of 15-85 units of Rhizopus arrihizuo lipase and 5-85 units of Candida cylindracea lipas per 100 units of total lipase present.

The compsn. is useful for the determn. of triglyceride conc. in an aq. medium such as a body fluid or foodstuff partic. serum, by measuring the light absorbance of the medium following hydrolysis of the triglycerides to glycerol and fatty acids. The combination of the lipases produces a synergistic effect and it is possible to completely hydrolyse the glycerol esters using relatively small

amts. of readily available commercial grade lipases as a single reagent. (J52147658).

NODA D16 41307 B/22 = J8 1000-030
Prodn. of alpha-amylase I or II - which exhibits strong activity in the presence of sodium chloride soln.
NODA SANGYO KAGAKU 24.09.77-JP-113950
*(06.01.81) *J54049-391 + C12n-09/28 C12r-01/**
24.09.77 as 113950 (10pp42)
Prodn. of alpha-amylase-I (I) and/or -II(II), comprises incubating a microorganism of genus Acinetobacter and collecting (I) and/or (II). As (I) and (II) exhibits strong activity in the presence of 1-4% NaCl solution, they can be effectively used in the prod. of seasoning. (J54049391).

AGEN D16 43219 A/24 = J8 1000-031
Increasing activity of bacterial alpha-1,6-glucosidase - by using the enzyme fixed on silicate mineral, in presence of calcium ions
AGENCY OF IND SCI TECH 19.10.76-JP-125362
*(06.01.81) *J53050-391 + C12n-09/44 C12r-01/07*
19.10.76 as 125362 (5pp)
Method comprises carrying out enzymic reaction using a fixed enzyme which is obtd. by fixing bacterial alpha-1,6-glucosidase on silicate mineral, its burned prod. or its fused prod., in the presence of calcium ion. The alpha-1,6-glucosidase, produced by Bacillus cereus var. mycoides (FERM-P 2391) and Aerobacter aerogenes (IFO 3321), can be fixed effectively on silicate mineral (e.g. bentonite, activated acid clay, kaoline, bauzite, etc.), its burned prod. (e.g. unglazed pottery) or its fused prod. (e.g. glassy substance, fine glassy granules, etc.) and the fixed enzyme is esp. activated in the presence of calcium ion.

Specifically, the activity of fixed alpha-1,6-glucosidase can be increased by the presence of 0.001-0.1 mol., pref. 0.005-0.5 mol. of calcium ion by adding water soluble calcium salt such as calcium chloride acetate, etc. (J53050391).

GREC D16 80618 Y/45 = J8 1000-032
(L)-Asparginase immobilised in human fibrin - treated with aq. amino acid or alcohol and heated to improve stability
GREEN CROSS CORP 29.03.76-JP-034642
*B04 (06.01.81) *J52117-489 A61k-37/54 + C12n-09/96*
29.03.76 as 034642 (6pp52)
L-Asparaginase fixed in human fibrin stabilised by immersing in an aq. soln. of amine and heating the mixt. in order to inactivate hepatitis virus.

Relative activity of the urea is 4.0-11.0 microns unit/mg. Granular size is 60-150 microns. Hepatitus virus is inactivated at 55-65 deg. C for 9-11 hrs. The heating process is conducted at pH 6.5-9.5. Typical amine is e.g. amino acid (aspartic acid, asparagine, glycine alanine, valine, lysine, and epsilon-aminocaproic acid). The amt. of amino acid to be added is 15-150 mM (final conc). The amine is an aliphatic amine, or amino-alcohol (ethanolamine, triethanolamine and trishydroxymethylamine). The amt. of the aliphatic amine or aminoalcohol to be added is 5-50 mM (final conc). The aq. soln. of amine contains no mineral salt.

L-Asparaginase used in treatment of leukaemia is fixed in human fibrin in order to avoid anaphylaxis. The prepn. of L-asparaginase is subjected to thermal treatment to inactivate hepatitis virus. (J52117489).

AGEN D16 64363 A/36 = J8 1000-033
Fixed enzyme, e.g. invertase, urease or glucose isomerase, prodn. - by mixing enzyme with aq. amino:acetal-modified PVA soln. and crosslinking to form gel chemically or by irradiation
AGENCY OF IND SCI TECH 13.01.77-JP-003072
*A96 (06.01.81) *J53088-392 + C12n-11/04*
13.01.77 as 003072 (4pp5)
Method comprises adding enzyme in aq. 2-15% soln. of aminoacetal-modified PVA and crosslinking the soln. to form the gel including the enzyme, having moisture content 100-150%.

Pref. the modified PVA is obtd. by reacting PVA with N-substd. aminoaldehyde (e.g. dimethylaminoacetaldehyde, trimethylaminoacetaldehyde, dimethylaminobenzaldehyde, trimethylaminobenzaldehyde, etc.), or its acetal and the obtd. modified PVA has active cationic gp. which can bond with enzyme through ionic bond. Various enzymes such as invertase, glucoseisomerase, urease, etc. can be fixed. The crosslinking is carried out either chemically with polyaldehyde such as dialdehyde or with e.g. gamma-ray, electron ray, etc.

Enzyme is included in the reticular structure of the crosslinked polymer and can be bonded with the active gps. of the polymer through ionic bond. The obtd. fixed enzyme is stable and has long life. (J53088392).

YAMS D16 62218 Y/35 = J8
Fixed enzyme compsns. prodn. - by bonding enzymic prot organic metal derivs. composed of ion exchange resin
YAMASA SHOYU KK 16.01.76-JP-003226
*(06.01.81) *J52087-293 + C12n-11/08*
16.01.76 as 003226 (7pp5)
Fixed enzyme compsns. are prepd. by bonding enzymic prot organic metal derivs. composed of ion exchange resin havin lattice constant or larger pore size than the max. dia molecules of the enzymic protein. The method comprises co the ion exchange resin with metal salt in a soln. to form metal deriv. and reacting with the enzymic protein (except that can decompose 31,51-phosphodiester bond).

Various useful enzymes can be fixed simply and rapi highly active and stable fixed enzymes can be obtd. The met be applied to almost all kinds of enzymes including the e having high molecular substrate. (J52087293).

AGEN D16 78942 A/44 = J8
Enzymes fixed on anion exchanger comprising chitin or ch into which amino or quat. ammonium anion exchange gp been introduced
AGENCY OF IND SCI TECH 08.10.76-JP-120960
*B04 (06.01.81) *J53109-990 + C12n-11/10*
08.10.76 as 120960 (3pp5)
Method comprises contacting the enzyme with an anion exc composed of chitin or chitosan into which anion exchan R1R2N-R4- or R'1R'2R'3N-4- (e.g. opt. substd. amino gp. and quat. ammonium gp.) have been introduced and bonding the and the anion exchanger through ionic bonds. In the formul R2 are H or alkyl; R'1,R'2, R'3 are alkyl; R4 is alkylene or ary

Chitin or chitosan is obtd. by removal of salts and protein the shells of crabs or prawns. The granular chitin or chitosan immersed in aq. caustic alkali soln.. Thus its OH-gps. are co to -ONa or -OK gps. and it is reacted with a reagent introducing anion exchange gps. As reagent (I) an organic R1R2N-R4-X or R'1R'2R'3N-R4-X can be used, and the rea effected at 50-250 deg.C pref. at 100-120 deg.C. On thus prepd. enzymes can be bonded up to 10% and fixed enzymes a dissolved out even in soln. having high ionic strength. (J531099

AGEN D16 43217 A/24 = J8 1
Fixing alpha-1,6-glucosidase and/or beta-amylase - produ Bacillus bacteria, by adsorbing the enzyme on burned prod. o for use in prepn. of maltose from starch
AGENCY OF IND SCI TECH 19.10.76-JP-125361
*(06.01.81) *J53050-389 + C12n-11/14*
19.10.76 as 125361 (3pp5)
Method comprises adsorbing at least one of alpha-1,6-gluco and beta-amylase produced by Bacillus bacteria on the burne of clays and fixing the enzyme on it. By this method alp glucosidase and/or beta-amylase can be fixed effectivel maltose can be prepd. from starch economically with it. Furth alpha-1,6-glucosidase and/or beta-amylase can be recover extracting the adsorbed enzyme with a suitable solvent.

Alpha-1,6-glucosidase and beta-amylase produced by B cereus var. mycoides (FERM-P 2391), Bacillus YT1002, Bacill YT1003. Bacillus polymixa, etc. can form maltose from almost stoichiometrically and can be fixed effectively on the b prod. of clays. The burned prod. can be obtd. by burning composed of hydrous aluminosilicate such as bentonite, act acid clay kaoline, talc, bauxite, montmorillonite, etc. at 3 deg.C and crushing them. (J53050389).

MITU D16 80950 A/45 = J8 1
Fermentative prodn. of antitumour substance P9-12 - by cul Pseudomonas genus microorganism
MITSUBISHI CHEM IND KK 09.03.77-JP-025695
*B04 (06.01.81) *J53113-093 C07g-11 + A61k-35/74 C12p-01/0 01/38*
09.03.77 as 025695 (8pp69)
Prodn. of physiologically active substance p 9-12 com culturing microorganisms of Pseudomonas genus and sep desired prod.

Pseudomonas SP 9-12 fungi was deposited as FERM-P No Physiologically active substance P 9-12 has excellent antit activity. (J53113093).

TSUJ/ D16 36024 B/19 = J8 1
Terpene alcohol ester synthesis - by reacting opt. satd. fatty ac a terpene alcohol with lipase
TSUJISAKA Y 06.09.77-JP-106264
*E19 (06.01.81) *J54041-385 + C12p-07/02 C12r-01/68*
06.09.77 as 106264 (6pp42)
Synthesis of terpene alcohol-ester is by reaction of 3-18C opt. fatty acid (I) and mono-, sesqui- or di-terpene alcohol (II) with

oduced using Aspergillus niger, Rhizopus delemar. m candidum and Penicillium cyclopoium microorganisms. g., propionic acid, n- or iso-butyric acid, capronic acid, acid, or stearic acid. (II) is e.g., geraniol, citroneol, phytol ol.

example, geraniol (IV) and butyric acid (IV) were reacted I) produced from Aspergillus niger. The reaction yield d using a wt. ratio of (IV)/(V) greater than 3.4. The presence in amt. 10-20 times the wt. of that of (V) was preferred. The yield increased according to increase in (III)-activity. 85).

D16 15534 B/08 = J8 1000-040

ological prepn. of epoxide cpds. - by culture of Nocardia a ATCC 31338 in presence of alpha-olefin or alpha-omega-

RES CENTER KK 24.06.77-JP-075127

*E13 G02 (06.01.81) *US4106-986 + C12p-17/02 C12r-01/36*

as 075127 (5pp478)

es (I) are prepd. from olefins (II) by the aerobic culture of ia corallina (ATCC 31338) on a conventional nutrient medium II). (II) are 4-20C alpha-olefins or alpha,omega-dienes.

biological prepn. affords high yields of alpha-epoxides of mega-diepoxides which are useful as starting materials for ants and paints. The process is inexpensive and suitable for commercial scale.

example, N. corallina (FERM-P-4094) was cultured at 30 deg. edium (pH 7.2) contg. 1-tetradecene. After 5 days, the yield of xytetradecane was 2.6 g/l. (J54011297).

★ D16 07036 D/05 ★RD-201-005

ing lactate oxidase in enzyme assay systems - with glycolic, or glyoxalic acid, to eliminate interference from lactate

ONYMOUS 20.12.80-RD-201005

*(10.01.81) C12d-00/**

as ------ (2pp1251)

ted lactate oxidase activity is eliminated by adding at least glycolic, oxalic or glyoxalic acids or their salts. Typically the or is used in enzyme assay systems at a concn. of 5-50 mM, H 5.5-9.5 and temp. 20-45 deg.C. It can be used in both wet and ay systems.

e inhibitors prevent interference from lactic acid and lactates analysis of aq. samples, esp. biological fluids being tested reagent having L-alpha-glycerophosphate oxidase (GP) and dase (PO) activities for assay of triglycerides. They can also l in systems for assay of glucose cholesterol and uric acid.

= ★ D16 07093 D/05 ★SU-735-631

y-picked hops treatment - includes sulphitation and storage in r di:oxide atmos. to preserve colour and aroma

V FOOD IND TECH(HOPS =) 10.07.78-SU-640536

05.80) C12c-03/04

as 640536 (3pp938)

rvation of freshly-harvested hops for subsequent use in g includes sulphitation and storage in a sealed container sulphur dioxide gas. In order to preserve the natural teristics of the freshly-picked hops during the prolonged e period and to simplify the preservation process, the golden- or light yellow- green hops are treated in a sulphitation er to give prod. contg. 0.1-1.0 wt.% sulphur dioxide. The prod. stored in an air-tight container made from chemically inert al and filled under pressure with sulphur dioxide gas.

above procedure improves the colour of hops and suppresses owth of microflora and biochemical processes in hops, as it ates enzymes. After prolonged storage the prod. has colour oma of freshly-gathered hops. Bul.19/25.5.80.

= ★ D16 07094 D/05 ★SU-735-632

omonas aeruginosa identification - by selective culturing in mt contg. cetyl pyridinium chloride and phenozan salt

IED EPIDEM MICROB(LETR =) 07.04.78-SU-596463

(25.05.80) C12k-01

8 as 596463 (2pp938)

omonas aeruginosa microbial strain identification in medical robiological sample includes selective culturing in medium N-cetyl-pyridinium chloride (I) with subsequent bacterial

selective nutrient medium contains (in g/l): pentone 20.0; (I) otassium sulphate 7.6; magnesium sulphate 2.4; sodium onate 1.0; potassium salt of phenozan (II) 0.5; agar-agar 10.0 ater 1000 ml. The medium has pH 7.0-7.2. The addn. of (II) ses the sensitivity of the determn. Its amt. can vary by 10%.

UPJO D16 74374 W/45 = SU-736-875

Antibiotic U-43795 and its derivs - prepd by cultivating Streptomyces sviceus, is active against e.g. Bacillus subtilis

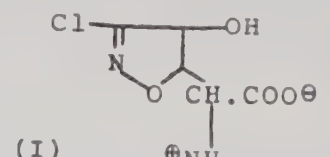
UPJOHN CO 17.04.74-US-461635

*B03 (26.05.80) *DE2514-984 C12d-09*

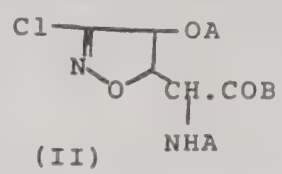
16.04.75 as 124245 (4pp)

Antibiotic U-43795 of formula (I) and its hydrate, their acid addition and base salts, zwitter-ionic forms, and their derivs. of formula (II) are novel. In the formulae, A is acyl derived from a 2-18C hydrocarbyl carboxylic acid opt. substd. by halo, NO2, OH, NH2, CN, thiocyano, or lower alkoxy, or is SO2R, R is CH3 or tolyl; B is OH, NHR1 or OR1; R1 is 1-20C alkyl; one A may also be H.

(I) is active against Gram positive bacteria such as Bacillus subtilis, B.cereus, Sarcina, lutea and Salmonella gallinarum and can be used e.g. for preserving petroleum products, to reduce the odour of fish or fish boxes or to sterilise lab. equipment. (I) is also active against mouse leukaemia L1210. Bul.19/25.5.80.



(I)



(II)

KABI D16 28830 A/16 = SU-736-889

Chromogenic substrates for serine protease enzymes - comprising tetra-peptide derivs., used as colour reagents for determining Xa factor involved in blood clotting

KABI AB 01.12.76-SE-013463

*B04 J04 S03 (S05) (26.05.80) *BE-861-295 G01n-33/16*

30.11.77 as 548501 (4pp)

Chromogenic enzymatic substrates specific for serine proteases comprise tetrapeptide derivs. of formula R1-Ile-A-Gly-Arg-NHR2 (I) (where R1 is acyl, pref. acetyl or benzoyl; R2 is p-nitrophenyl, beta-naphthyl or 4-methoxy-beta-naphthyl; A is carboxy-modified Asp or Glu, pref. in the form of a lower alkyl, cycloalkyl, substd. aminoalkyl or hydroxyalkyl ester or an amide in which the N atom is substd. by substd. aminoalkyl, hydroxyalkyl or mono- or disubstd. lower alkyl or forms part of a piperidine, morpholine or piperazine ring). A typical cpd.(I) is benzoyl-Ile-Glu(OMe)-Gly-Arg-p-nitroanilide.

The substrates are esp. useful as colour reagents for determining the Xa factor involved in blood clotting. They are superior to the best known substrate (benzoyl- Ile-Glu-Gly-Arg-p-nitroanilide, S-2222) in that they have lower Michaelis constants (by a factor of 2-5) and give greater sensitivity and lower detection limits. Bul.19/25.5.80.

BEPI = ★ D16 07174 D/05 ★SU-736-978

Prodn. of immune ascitic fluid used as animal antibody source - includes injection into peritoneal cavity recipient animal ascitic fluid contg. tumour cell of preliminary immunised animal donor

BELO EPIDEM MICROBI 20.08.76-SU-398963

B04 (30.05.80) A61k-39

20.08.76 as 398963 (2pp70)

Immune ascitic liquid is obtained by immunising an animal recipient with antigen, by grafting a tissue obtd. from an animal donor having an ascitic tumour; The ascitic fluid is collected and purified.

The immunising activity of this product is increased by grafting to the animal recipient abdominal cells of the animal donor which has been preliminarily immunised with the same antigen.

The immune ascitic fluid obtd. by this process is used as a source of antibodies. By this method the immunisation activity of the ascitic fluid can be increased 1.4-4.8 times. Bul.20/30.5.80.

AUGA = ★ D16 07346 D/05 ★SU-737-437

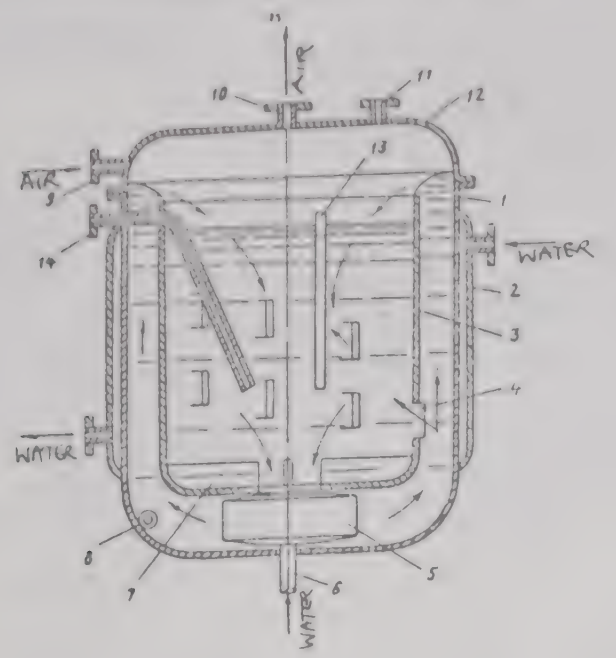
Microorganisms culture unit - has radial ribs in bottom of circulation cup intensifying mass exchange

AS UKR GAS INST 22.11.77-SU-545343

(30.05.80) C12b-01/10

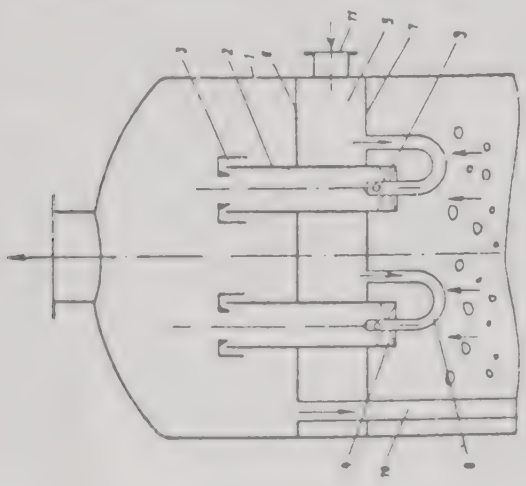
22.11.77 as 545343 (4pp89)

Prevention of fluid turning in the circulation cup of the microorganisms culture unit as well as hindering air bubbles ingress and the intensification of mass exchange are achieved by inclusion of radial ribs. These are mounted on the inside surface of the circulation cup bottom with the culture fluid entering the cup during the rotation of the mixer.



KIFO = ★ D16 07347 D/05 ★SU-737-438
Microorganisms culture unit - has cylindrical insert in annular gap between circulation cylinder flange and disc
KIEV FOOD IND TECH 21.11.77-SU-548002
(30.05.80) C12b-01/10
21.11.77 as 548002 (5pp89)
Improved yield of microorganisms culture unit is due to increased aeration of the culture fluid as well as due to improved stirring. A cylindrical insert is fitted in the angular gap between the flange of the circulation cylinder and the disc and comprising ports for the fluid-gas mixt. issued by the ejectors. The nozzles of ejectors face the ports, the culture fluid from the tank entering the circulation pump for forcing into the distributor manifold with telescopic tubes of nozzles directing the flow into ejectors mixing chambers.

BEKI ★ D16 07348 D/05 ★SU-737-439
Microorganisms growth foam breaker - has bladed swirlers in lower ends of tubes below liquid agent sprayers
BELORUSS KIROV TECHN INS 16.07.76-SU-384150
(30.05.80) C12b-01/18
16.07.76 as 384150 (2pp89)
Intensified foam breaking un a unit for microorganism culture is ensured by bladed swirlers in the lower end of the tubes.The chamber for the liquid foam breaking agent holds the ends of U-tubes whose other end is plugged, and features side holes for spraying the agent above the swirlers. The foam passing the swirlers is agitated to turn and the centrifugal forces thrust it to the wall to form a turbulised film moving upwards. Part of the foam is broken up by blades impact while final destruction is due to the action of the liquid agent spray.Bul.20/30.5.80.



VOTE = ★ D16 07349 D/05 ★SU-737-440
Aq. nutrient for baker's yeast growing - contg. molasses, ammonium sulphate, potassium chloride, phosphoric acid and corn extract hydrolysate
VORON TECH INST 22.11.77-SU-546579
B04 (30.05.80) C12b-03/14
22.11.77 as 546579 (3pp938)
Medium for culturing baker's yeast, contg. molasses, ammonium salt, potassium salt, phosphoric acid, a growth stimulating agent and water, can be used also in mfr. the of antibiotics, vitamins etc.The nutrient medium contains (in g/l): molasses 46.0-60.0; ammonium sulphate 3.5-4.5; potassium chloride 0.05-0.06; phosphoric acid 0.6-0.8; maize extract acid hydrolysis prod. 1.9-2.2 and water the rest.
The addn. of maize extract hydrolysate as biological a stimulating agent increases the yield of yeast biomass by 5-10% to the high stability of the biostimulant, the sterility of the med increased.Bul.20/30.5.80.

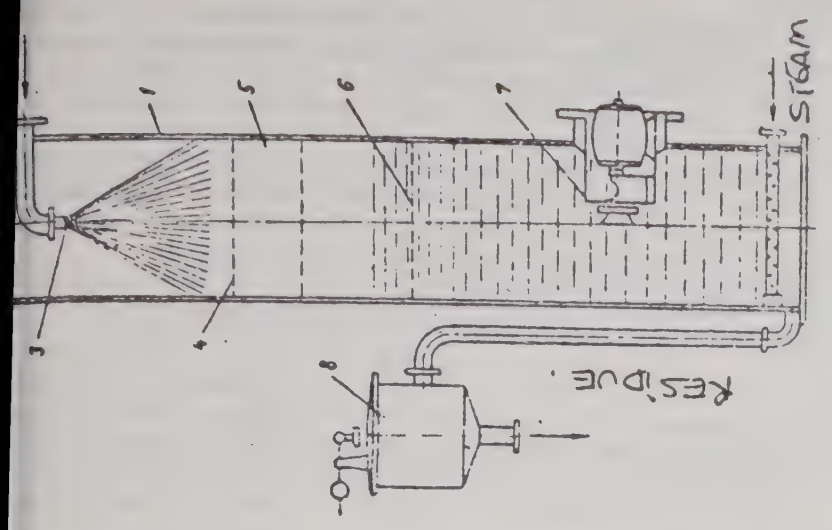
PETR- D16 34242 X/19 = SU-
Microbially-produced protein recovery - using an ethylene propylene oxide polymer both as a fermentation auxiliary ar sepn aid
VEB PETROLCHEMISCHE 23.10.74-DD-181849
*A97 (30.05.80) *DE2544-625 C12b-01/26 C12c-11/24*
15.10.75 as 181354 (2pp)
In the microbial recovery of protein by continuous sepn. f reaction mixt.; a nonionic surfactant fermentation aid, p known polymsn. prod. of ethylene oxide and propylene oxide h a mol wt. of 1750-2250 is used simultaneously as a sepn. a significant redn. in the quantity of the fermentation/ sepn. aid is achieved and the process made more econo thereby.Bul.20/30.5.80.

BERD = ★ D16 07350 D/05 ★SU-7
Bacterial strain Bacillus subtilis 163 - is high yield produc amylosubtilin and protosubtilin
BERDSK CHEM WKS 01.04.77-SU-467832
(30.05.80) C12d-13/10
01.04.77 as 467832 (3pp314)
Bacillus subtilis 163 has resistance to virulent phages.The cell 3-day wort-agar are 0.7-0.8 x 2-3 micron in size and are mobile; 4-5 days oval spores of size 0.6-0.9x1.0-1.5 micron are fo eccentrically. Optimum growth temp. is 37 deg. C.
The strain assimilates glucose and saccharose and hydro starch. It produces the above subtilins in high yield per unit vol.

ASBI = ★ D16 07351 D/05 ★SU-7
Bacterial DNA-cytosine methylase - extracted from cel escherichia coli mre 600 strain with subsequent chromatog and dialysis
AS USSR BIOCH PHYSI 27.10.77-SU-537613
A91 B04 (30.05.80) C12d-13/10
27.10.77 as 537615 (4pp314)
Enzyme DNA-cytosine-methylase 1 is obtd. from cells scherichia coli MRE 600 by:disintegrating the biomass; centrif the resulting homogenate at 10000-30000 G; ppting nucleic acids the cell-free extract with protamine sulphate; fractionatin remaining protein soln. with (NH4)2SO4; desalinating the enz contg. fraction by gel filtration and chromatographing Sephadex.
The protein soln. is then chromatographed twice on DNA-ag and then on carboxy-methyl cellulose. The resulting soln. is pa down a series column through cellulose and is then finally stabi by dialysis against a glyceriol soln. The resulting enzyme pro homogeneous and is obtd. in good yield.

MOFJ ★ D16 07352 D/05 ★SU-7
Distillation of alcoholic fermentation liquor - includes c countercurrent flow of liquor and steam to increase alcohol yiel
MOSCOW FINE CHEM TECHN 19.09.78-SU-669543
(30.05.80) B01d-03/26 C12f-01
19.09.78 as 669543 (2pp938)
Distillation of alcoholic fermentation liquor includes cou current passage of steam and liquor through a distillation colun order to increase the yield of alcohol, the distillation colun changed at short intervals with steam and liquor keeping stea liquor charging period ratio of 2.0 to 4.0. The column is charging liquor from above for 5-10 sec. and with wet steam from below f 20 sec.The cyclic operation increases the heat-mass transfer g prod. contg. 88% alcohol.The distillation residue contains 0.015% alcohol.Bul.20/30.5.80.

YALO = ★ D16 07353 D/05 ★SU-7
Fermented mash distiller - has sonic vibrations generator in l part of column with trays carrying balls
YALOVENY AGRIC IND 04.04.77-SU-476300
(30.05.80) C12f-01/02
04.04.77 as 476300 (2pp89)
Intensified mass exchange in the mash distilling unit en process efficiency improvement with the column comprising a vibration generator.The generator is fitted in the lower section column whose trays carry balls.The fermented mash is charge the feed tray from where it flows to the other trays. Heat ascending vapour ensures mash boiling when the alcohol is d off. The vibrating balls give rise to a fluidised bed in tray enhancing the mass exchange.Bul.20/30.5.80.



★ D16 07355 D/05 ★SU-737-447
tion of wine and spirit - includes use of vessel contg. copper nd oak strips, useful in port and brandy mfr.
D IND EXTRAMURAL 16.10.78-SU-689021
6.80) C12h-01/22
as 689021 (2pp938)
tion of wine or spirit, useful in mfr. of port or brandy, s storage in a vessel contg. copper plates, and oakwood strips ssing controlled amts. of oxygen.The flavour of wine or is improved and the maturation process is accelerated by ating the oxidn.-redn. process, esterification and melonoidin on. The wines or spirits are matured at 40-80 deg. C. during 10 4 months period in the presence of controlled amts. of copper wood.
opper plates are 1-3mm thick and oakwood strips have 200- length, 10-40mm width and 0.5-2.0mm thickness.The number s and strips in the maturation vessel must correspond to 3-10 l and 50-100 sq.cm/l for copper and oakwood, ively.Bul.20/30.5.80.

★ D16 07357 D/05 ★SU-737-449
sing agar gel for use in immunology - includes treatment of el soln. with poly-N,N di:ethyl di:methylene-sulphonyl inium chloride
RETSKII A N 18.07.78-SU-684685
B04 (03.06.80) C12k-01
as 684685 (2pp938)
el soln. is treated with polymeric quaternary ammonium salt sequent use in prodn. of cheap gel-forming microbiological The latter are used in experimental and clinical ology, e.g. for antigen-antibody reaction on agar gel based ate.
rder to simplify the elimination of anticomplementary teristics and reduce processing costs, 1% aq. gel soln. is with 0.1-3 mg/ml poly-N,N'-diethyl-3,5-dimethylene nyl-piperidinium chloride.The above reagent is a low-cost produced chemical.Bul.20/30.5.80.

= ★ D16 07358 D/05 ★SU-737-450
rial strain Streptococcus diacetilactis A-5 - used in prodn. of flora bacterial milk fermentation starter for cheese etc. mfr.
TAI BUTTER CHEESE 02.03.77-SU-459421
3) (03.06.80) A23c-19/02 C12k-01/02
7 as 459421 (3pp314)
rial strain Streptococcus diacetilactis A-5 is used as a bacterial ntation starter for making cheeses having a low sec. heating it imparts good taste and flavour to the cheese.
cocci have a size 0.5 x 0.6 micron and occur singly, as occi or in chains; they are Gram-positive. On an agar contg. ysed milk and 1% yeast autolysate, white circular colonies of 5-2.0mm are formed on the surface while fine, boat-like es beneath the surface.The strain assimilates glucose, maltose ctose strongly and dextrin and saccharose weakly. A 10-day e in milk produces 7.34% free fatty acids.

A/ ★ D16 07359 D/05 ★SU-737-451
al strain Cephalosporium acremonium BKMF 2033 - is used in obiological polymeric material and coating tests for gradation resistance
ERASIMENKO A A 21.11.77-SU-545335
5 (03.06.80) C12k-01/02
77 as 545335 3pp314)
al strain Cephalosporium acremonium BKMF 2033 displays growth at lower temps . on paint and lacquer surfaces. Its aum growth temp. is 20-22 deg. C; after 30 days at 6 deg. C ies of dia. 25mm can be formed. The strain does not survive at g. C.

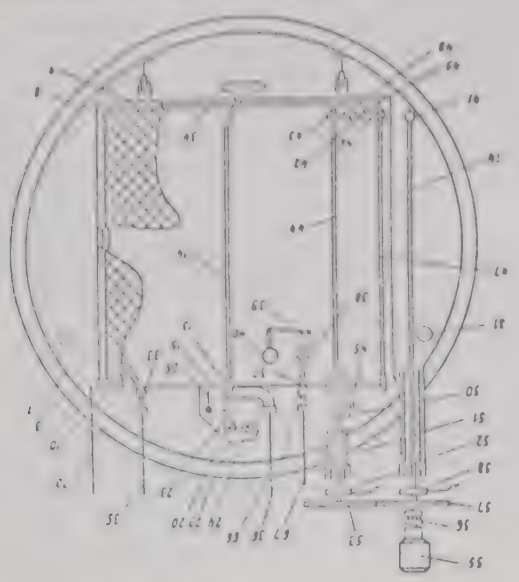
The strain grows on maltose and weakly on lactose, glucose and in solns. contg. tannin. It does not grow on butter, cellulose or org. acids. Mucous colonies are formed on glycerin and mannitol. On a wort-agar white, elongated colonies are quickly formed having a velvety surface. After 5 or 6 days, concentric concave and convex ridges form and after 30 days the colonies become rose red.

MOVA= ★ D16 07360 D/05 ★SU-737-452
Enterobacteria differentiation nutrient medium - includes casein hydrolysate, ferric citrate and sodium metabisulphite, useful in intestinal infection diagnosis
MOSC VACCINE SERUM 25.05.76-SU-364975
B04 (03.06.80) C12k-01/06
25.05.76 as 364975 (2pp938)
Nutrient medium used for deffentration of enterobacteria, useful in medical microbiology for identifying the source of acute intestinal infections contains(in g/l): casein enzymic hydrolysis prod. 18.0-26.0; yeast extract 4.5-8.0; sodium chlorde 4.7-5.7; lactose 9.2-10.2; glucose 0.9-1.1; ferric citrate 0.2-0.4; anhydrous sodium thiosulphate 0.2-0.4; sodium metabisulphite 0.25-0.5; phenol red 0.03-0.05; agar 10.0-15.0 and water to 1l.
The addn. of sodium metabisulphate increases the sensitivity and the accuracy of tests involving bacterial strains normally forming only small amts. of hydrogen sulphide.Bul.20/30.5.80.

MOVA= ★ D16 07361 D/05 ★SU-737-453
Whooping cough bacteria culturing - includes use of sterile compressed air flow over nutrient to suppress foaming and increase aeration
MOSC VACCINE SERUM 21.07.77-SU-508983
B04 (04.06.80) C12k-01/06
21.07.77 as 508983 (2pp938)
Bordetella pertussis is a bacterial consative agent of whooping cough in man.The bacterial cells are cultured in a fermentation vessel contg. aerated liquid nutrient at 36.6-36.8 deg.C. The compressed air supply is used to suppress foam formation and to increase the aeration of the culture medium.
Max. cell growth rate with increase in biological activity of cells yielding increased amt. of biomass is obtd. if the sterile air pressure over the nutrient is maintained at 6.86 x 10 power three to 9.8 x 10 power three Pa, depending on foaming characteristics of the medium.Bul.20/30.5.80.

UVET= ★ D16 07362 D/05 ★SU-737-454
Purificn. of agar-agar for microbiological use - includes treatment of melt with calcium chloride in presence of egg white followed by filtration
UKR VETERINARY INST 10.04.78-SU-601146
(03.06.80) C12k-01/06
10.04.78 as 601146 (2pp938)
The purification of agar-agar includes soaking it in distilled water at pH 7.0-7.2, melting and clarifying the cooled melt by means of egg white followed by filtration to give high clarity prod. for use in medical and veterinary microbiology for infection source diagnosis involving diffusion-pptn. reaction.
In order to increase prod. purity and accelerate purificn. process the agar-agar melt is cooled to 45-50 deg. C and treated with calcium chloride at elevated temp. in the presence of egg white to coagulate impurities.The prod. is then clarified by filtration. Cheap, home-produced agar-agar can be purified in 3 hrs. by the use of the above method.Bul.20/30.5.80.

SHES/ ★ D16 07363 D/05 ★SU-737-455
Toxin producing bacteria growth unit - has common nutrient chamber and frame with containers for toxin collection
SHESTERENKO A F 11.05.76-SU-356291
(03.06.80) C12k-01/10
11.05.76 as 356291 (7pp89)
Enhanced purity of toxins is produced by the unit comprising a common chamber for the nutrient. The frame carries containers in the carcass for collecting the toxins, and both the chamber and the containers are fitted with stirrers.The level sensors are moved in synchronism and the containers are provided with siphon tubes which are sequentially opened and closed for feeding the culture medium through pipes exhibiting float valves.



VOTE = ★ D16 07364 D/05 ★SU-737-456
Fungal strain Rhizopus tritici T1 - is producer of high activity glucoamylase, useful in sugar and alcohol mfr.
VORON TECH INST 25.07.77-SU-509672
(03.06.80) C12c-09 C12k-03
25.07.77 as 509672 (4pp314)
Fungal strain Rhizopus tritici t-1 produces glucoamylase, used for hydrolysing starch and starch-contg. prods. The activity of the gluco-amylase is 200-250 units/g of air-dried culture. It is free of glucosyl-transferase and contains endo- and beta- gluconase and proteinase.
On a mineral Chapek medium contg. 2% starch and a 10-fold aq. extract of malted grains, the mycelia develop rapidly; they have a felt-like appearance and are initially white, turning grey. Spare formation commences after 24 hrs., the height of the mycelia is 2-2.5mm. The strain assimilates glucose, rhamnose, arabinose, galactose, saccharose maltose and fructose; sorbitol is not assimilated. Growth occurs at 28-55 deg. C, the optimum temp. being 34 deg.C. The strain may be used as a producer of glucoamylase by the surface or deep methods of cultivation.

UVET = ★ D16 07365 D/05 ★SU-737-457
Animal tissue cell culturing - using as substrate corrugated aluminium foil, useful in virology
UKR VETERINARY EXPT 11.07.75-SU-170918
(03.06.80) C12k-09
11.07.75 as 170918 (2pp938)
Animal(or bird)tissue cell culture, useful in virology is obtd. growing cells in a liquid nutrient medium on a surface of corrugated aluminium coil. The above substrate has large surface area, is good heat conductor and can be easily sterilised. It does not inhibit the cell growth.Before use as a substrate, the corrugated aluminium foil is treated with 1% trisodium phosphate soln. washed with water, then 0.01% hydro- chloric acid soln., and after several washes with water is sterilised in dry air at 180-200 deg. C for 2.0 hrs.
The tissue cells are cultured at 37 deg.C., and the cells are removed by washing away new growth with Versene(chelating agent) soln. after 10-15 min. holding at 37 deg. C. The cell suspension is then centrifuged for 10 min. to separate the cell biomass. Bul.20/30.5.80.

ABBO ★ D16 07651 D/05 ★US 4244-865
Alpha-hydroxy tri:peptide substrates - for chromogenic determination of specific proteolytic enzymes e.g. antithrombin III
ABBOTT LABORATORIES 03.12.79-US-099376
B04 (13.01.81) C07c-103/52 C07g-07
03.12.79 as 099376 (4pp914)
A chromogenic substrate' for the quantitative determn. of proteolytic enzymes which split peptide bonds on the carboxyl side of arginine and lysine, comprises a cpd. of formula
HO-CHR1-CO-A1-A2-R2 (I)
R1 is H, 1-4C alkyl or benzyl; R2 is p-nitroanilide. nitrophenyl' methylnitrophenyl, dinitrophenyl, naphthyl or nitronaphthyl. A1 is Gly, Ala, Val' Leu' Pro, Ile, Ser, Thr, Asp' Asn, Glu, Gln' Lys, hydroglycine' His, Arg, Phe, Tyr, Trp, Cys, pipercolic acid or Met; and A2 is Arg or Lys.
(I) can be used to measure antithrombin (III) (AT-III) in the human anticoagulation system' e.g. when investigating defects in the anticoagulation system. When (I) is cleaved it releases a spectrophotometrically detectable leaving gp.; and the amt. of fluorescence or colour produced is inversely proportional to the level of AT-III.

SUMO D16 86170 B/48 = US
Fibrinolytic enzyme urokinase lyophilisate stabilisation human serum albumin and a polar aminoacid esp. glutamic
SUMITOMO CHEMICAL KK 12.05.78-JP-056826
*B04 (13.01.81) *DE2917-899 A61k-37/48 + C12n-09/96*
09.05.79 as 037280 (4pp974)
Stable urokinase compsns. suitable for injection into the body are prepd. by lyphilisation of urokinase in an aq. so contg. human serum albumin and at least one amino ac albumin and amino acid(s) stabilise the urokinase.
The aminoacid(s) are Glu, Thr, His, Ser, Asp, Arg, Glu their salts. Pref. they are Glu, Na Glu, Thr, Arg or His.

PURD D16 86573 C/49 = US
Chromatographic carrier particles with thin surface coating exchange material, formed by adsorption then crosslinking
PURDUE RESEARCH FOUNDATI (PURF) 28.02.79-US-
*A89 J01 S03 P42 · (13.01.81) *DE3007-869 B01d-15/08 B05 G01n-31/08*
28.02.79 as 016031 (14pp945)
A pellicular coating is produced by contacting a support m with an adsorbate such that a pellicular coating of the adsor adsorbed to the surface by electrostatic forces. The coating crosslinked. For example, the adsorbate may be polyethylen 6, 1,3-diamino-2-hydroxypropane, tetaethylenepentamin ethylenediamine; the support material may be silica, alum titania, and crosslinking may be by effected contact with resin.
A coating of uniform thickness can be obtd reproducibly, al stable operation when the prod is in use; partic. as chromatography medium.

CORG ★ D16 07726 D/05 ★US 4
Detecting Neisseria bacteria in sample - by immunoassay of s enzyme 1,2-propane diol dehydrogenase in lysed sample
CORNING GLASS WORKS 28.09.77-US-837364
B04 J04 (13.01.81) C12q-01/66
28.09.77 as 837364 (4pp914)
The presence of Neisseria bacteria in a fluid sample is detecte contacting the lysed sample with antibodies specific t propanediol dehydrogenase, (ii) allowing the mixt. to react t an enze-antibody complex and (iii) testing for inhibition of e activity.
The mixt. of antibodies and lysed sample is pref. incubated deg. C and at pH 7-10 to form the enzyme-antibody comple assay procedure pref. comprises (i) adding buffer' NAD a propanediol to the incubated mixt., (ii) incubating this mixt. for 0.5-2 hrs.' and (iii) testing the mixt. spectrophotometrica inhibition of enzyme activity.
The process is esp. for detecting N. gonorrhoeae in a humar fluid or exudate. It has been found that the enzyme 1'2- propa dehydrogenase is specific to Neisseria, and hence a relatively and simple immunoassay can be used to establish the prese the bacteria. The enzyme is observed to oxidise 1,2-propanedi to reduce NAD.

BEHW D16 96508 X/52 = US 42
Stable microbial clumping factor - for detecting cleavage pr of fibrinogen and fibrin (BE101276)
BEHRINGWERKE AG 10.06.75-DE-525804
*B04 S03 S05 (13.01.81) *DE2525-804 C12n-01/20 C12q-01/56 01/44*
08.06.76 as 693906 (4pp945)
Homogeneous suspension of non-viable Staphylococcus aureu 7, positive to the clumping factor, in a buffered aq. soln. of pH (7.3-7.5) and contg. 3-50 wt.% soluble polyhydric alcohol is cla Suitable alcohols are mannitol, glucose, natural and syn carbohydrates and polyethylene glycol. The suspension may contain substances such as proteins to maintain or activate en activity and an antimicrobial agent.
The suspension is storage stable and is used to identify fibri and fibrin cleavage prods.

AMMO D16 44032 B/24 = US 42
Enzymatic determination of tri-glyceride(s) in serum - by hydr with lipase, conversion to glycerol 1-phosphate, then di:hyd acetone and redn. of NAD to NADH which reduces ferric to ferr
AMERICAN MONITOR CORP 07.12.77-US-858187
*B04 S03 S05 + P31 (13.01.81) *BE-872-547 + C12q-01/32*
07.12.77 as 858187 (7pp945)
Determn. of triglycerides in biological fluids comprise enzymatically hydrolysing the triglycerides with lipase converting the prod. formed to glycerol-1-phosphate with AT the enzyme glycerol kinase (GK); and (3) converting the glycer phosphate to dihydroxyacetone phosphate using the enzyme gly phosphate dehydrogenase (GPDH) with the simultaneous rec

nide adenine dinucleotide (NAD) to NADH.
provement is that the NADH formed is reacted with iron
ch is included in the same reaction mixt. as the lipase, to
n (II). The reaction is mediated by an electron transfer
ne iron (II) is reacted with a chelating agent to form a
hore of high intensity. The concn. of chromophore formed is
etermine the amt. of triglyceride in the biological fluid.
l is simple, sensitive and gives consistent results.

r D16 07728 D/05 ★US 4245-042
or harvesting cultured cells - with two complementary
ith conduits for application of vacuum source (IL 30.11.80)
A RES & DEV CO LTD 26.01.78-IL-053893
.81) C12m-03 C12q-01/24
as 005587 (4pp295)
e harvested from a standard culture plate using a device
ncludes complementary upper and lower blocks. The lower
cludes a conduit for carrying washing fluid from a source
e control of a valve.
are connected at their upper ends to the conduit and have
ver ends projecting downwardly from the block. They are
ed so that each of them fits into a well of the culture plate. A
series of tubes, parallel to the first extends through the lower
ne end of each tube terminating below the block, and the
rming an outlet on the upper surface of the block.
ond conduit in the upper block permits each of the outlets on
ace of the lower block, to be connected to a vacuum source.
apparatus is used for harvesting cultured cells from a
d culture plate.

★ D16 07729 D/05 ★US 4245-043
ell tray for microorganism identification - contg.
nical test media and adjacent negative controls contg. colour
r
NESOTA MINING CO 29.06.79-US-053436
1.81) C12m-01/20 C12q-01/20
as 053436 (10pp1251)
for use in identifying microorganisms consists of a tray
many test wells some contg. biochemical test media which,
ydrated, support growth of microorganisms with formation
latile colour-forming cpd. (A). Other closely-adjacent wells
negative control media including an inhibitor (B), which in
n. prevents the development of colour from (A). The test and
e control media have the same colour, when hydrated, before
tion.
esp. a buffer, and pref. some of the wells are also used as
tic test wells, contg. a predetermined concn. of antibiotic,
thers are antibiotic-free control wells.
use of the inhibitor in the negative control well eliminates
sitives caused by contamination with (A).

★ D16 07731 D/05 ★US 4245-046
iological prodn. of xanthan gum - using Xanthomonas
stris and medium contg. sugar, and pyruvic and/or alpha-
utaric acids
SSACHUSETTS INST TECH 23.03.79-US-023213
(13.01.81) C09j-03/02
9 as 023213 (5pp478)
own prepn. of xanthan gum (I) by the culture of xanthomonas
stris NRRL B-1459 on a conventional medium contg. a sugar C
is improved by addn. of an organic acid (II) (or salt, or ester)
medium. (I) is alpha-keto-glutaric acid and/or pyruvic acid.
ple method effectively increases the efficiency of prodn. of (I)
00%.

D16 72694 A/41 =US 4245-047
otics C-14919 E-1 and E-2 - made by growing a strain of
dia C-14919
KEDA CHEMICAL IND KK 31.03.77-JP-037168 (01.04.77-JP-
884)
*P34 (13.01.81) *BE-865-519 C12p-13 C12p-17/10*
9 as 066823 Div ex 4187292 (+ 23.7.77-US-815050) (11pp974)
otic C-14919 E1 or E2 is produced by cultivating a suitable
dia strain, pref. ATCC 31280, in a culture medium so that it
ates and accumulates the antibiotic(s) and then harvesting the
otic(s) from the broth.
has m.pt. 187 deg.C (decomp.), is in yellow prismatic or
ar crystals, has formula C30-32H42-48N2O8-9, has (alpha)D25
350 deg. + -10 deg. (c is 0.5, MeOH) and has negative ninhydrin,
h, peitide and 1% iron-chloride- 1% ferricyanide (1:1)
ons. E2 has a positive (blue) reaction to the last test and an
of 148 deg.C (decompsn.).
are useful as germicides and disinfectants.

SEJJ D16 35737 C/20 =US 4245-048
Coenzyme Q-10 prodn. - by culturing JY-155 strain (Ferm-P No. 4650) of trichosporon in medium contg. sulphate pulp waste liquor as main carbon source
JUJO PAPER MFG KK 25.09.78-JP-116732
*B05 (13.01.81) *J55048-397 C12p-07/66*
20.09.79 as 077430 (4pp974)
Coenzyme R10 is produced by cultivating the microorganism JY-155 of the genus Trichosporan (FERM-PAb50, ATCC 20566) in a medium contg. sulphite waste liquid as the C source to form and accumulate the R10 and then recovering the R10.
Pref. the sulphite waste contains 0.5-4wt.% sugar (as glucoside). Pref. the medium also contains an N source and at least one inorganic salt. Pref. cultivation is at 25-35 deg.C and pref. at pH 4-8.

PFIZ ★ D16 07732 D/05 ★US 4245-049
2-Keto-L-gulonic acid prodn. - by fermentation of di:keto-D-gluconic acid with Citrobacter, useful as intermediate for vitamin/C
PFIZER INC 21.01.80-US-113945
B05 E16 (13.01.81) C12p-07/60
21.01.80 as 113945 4pp1251)
Prodn. of 2-keto-L-gulonic acid (I) comprises cultivating an appropriate strain of Citrobacter in an aq. medium contg. 2,5-diketo-D-gluconic acid (II) or its salts. Specifically C. freundii ATCC 6750 or C. diversus ATCC 10787 are used, and (II) is esp. supplied as its Ca or Na salt. Fermentation is pref. at pH 5.5-7.5 and 25-35 deg.C.
(I) is an intermediate in the synthesis of ascorbic acid. Yields of 30% based on (II), can be achieved.

KYOW D16 38838 A/22 =US 4245-050
Choline oxidase enzyme prodn. - by cultivation of Brevibacterium or Corynebacterium strains
KYOWA HAKKO KOGYO 25.12.76-JP-155655 (19.11.76-JP-139120)
*B04 S03 (13.01.81) *DE2751-879 + C12n-09/06*
25.07.79 as 060282 (+ 21.11.77-US-853458) (13pp945)
Prepn. of choline oxidase comprises culturing an appropriate Brevibacterium album, Brevibacterium cerinum or Corynebacterium murisepticum microorganism. Pref. microorganisms of these species are respectively KY 4319 (FERM-P No. 3777), KY 4320 (FERM-P No. 3778) and KY 3505 (FERM P No. 3779).
Pref. culture is effected at 25-35 deg.C in nutrient medium contg. 7-800 mmol. per l. choline (salt) and having pH 7.0-8.5. The choline oxidase produced is useful in the quantitative determn. of choline. It has mol. wt. of about 97000 and isoelectric point of pH 4.05.

MINN ★ D16 07734 D/05 ★US 4245-052
Translucent microbial profile tray - having wells with diffusing and clear bases paired to eliminate effect of diffusion
MINNESOTA MINING CO 29.06.79-US-053437
(13.01.81) C12m-01/20
29.06.79 as 053437 (4pp1358)
Tray has uniformly shaped wells with openings at a flat surface, with some well lower ends having a smooth surface finish while others have a light diffusing finish, the diffusion simulating that which occurs when a clear well contains a microbial suspension.
The diffusing finish is pref. roughening of the exterior surface with an irregular profile. The wells are pref. in a rectangular array and are in pairs so that the same specimen can be examined in a pair of wells to eliminate the effect of diffusion. The tray is e.g. of polystyrene.

CESK D16 66684 B/37 =US 4245-064
Polymeric carrier activated for bonding of nucleophilic groups - contains nitrophenyl, poly:chlorophenyl, succinimidyl, phthalimidyl or quinolinyl carbonate ester gps.
CESKOSLOVENSKA AKAD 22.02.78-CS-001125
*A96 B04 (13.01.81) *GB2015-553 C07h-13/02 C08c-19/12 C08f-08/18 C12n-11/10*
12.02.79 as 011428 (5pp982)
New polymeric carrier contg. hydroxyl gps. activated for bonding of nucleophilic gps., is selected from polysaccharides, phenol-formaldehyde resins, polyacrylates, polymethacrylates and polyacrylamides, contains active gps. of formula .O.CO.OR1 (I) (where R1 is 4-nitrophenyl, 2,4-dinitrophenyl, 2,4,6-trichlorophenyl, 2,4,5-trichlorophenyl, pentachlorophenyl, n-succinimidyl, N-phthalimidyl or 8-quinolinyl).
The activated carrier is highly stable and the carrier is easily and inexpensively activated.

KALK/ ★ D16 07769 D/05 ★ZA 7800-248
Continuous centrifugal sorgnum beer separator - has distributor plate with circumferentially spaced ribs for supporting conical screen
KALKWARF D 16.07.78-ZA-000248
J01 (16.04.80) B01d

See Also
D13 EP --22619 D13 J8 1000018 D15 J8 100
D22 US 4244992

D17: SUGAR; STARCH

NETO/ ★ D17 D/05 ★BR 7904-272
Sugar cane rotary press
NETO D G 03.07.79-BR-004272
P71 (05.01.81) A23n-01 B30b-09/20

NETO/ ★ D17 D/05 ★BR 7904-273
Continuous centrifugal excavator
NETO D G 03.07.79-BR-004273
(05.01.81) C11b-01

SALZ ★ D17 05861 D/05 ★DE 2926-750
Tri:calcium saccharate from molasses - produced with higher efficiency by fine lime powder distribution and heat dissipation
SALZGITTER MASCH 03.07.79-DE-926750
E12 (22.01.81) C13j-01/04
03.07.79 as 926750 (28pp39)
In a plant for the prodn. of tricalcium saccharate from molasses as a by-product of sugar beet factories, the lime powder is added to the reactor through a continuous belt weigher and a chute. The chute discharges through a stationary filler spout on a distributor disc which is attached above liq. level to the vertical shaft of an agitator. An impeller, fixed to the same shaft, is also arranged inside the filler spout.

The uniform distribution and good heat dissipation permits the plant to be run continuously and with an improved efficiency and profitability.

AGPA- ★ D17 06200 D/05 ★EP --22-613
Continuous fermentation for alcohol prodn. - with recycling of settled yeast to fermentation vessel
AG PATENTS LTD 12.03.80-GB-008409 (16.07.79-GB-024754)
(21.01.81) C12m-01 C12p-07/06
30.05.80 as 301803 (25pp295) (E) NO-CITNS. E(AT BE CH DE FR IT LI LU NL SE)
In a continuous fermentation process, a carbohydrate soln. is fed continuously to a fermentation zone contg. homogeneously distributed yeast and carbohydrate soln. The carbohydrate is fermented to ethanol.

A portion of the fermenting liq. is continuously passed to a pressurised settling tank. A yeast-depleted liq. is drawn from the top of the settling tank and a yeast-enriched liq. from the bottom. A portion of the latter is returned to the fermentation zone to maintain the qty. of yeast constant at a desired concn.

The pressure within the settling tank is sufficient to prevent the formation of any gaseous carbon dioxide..

The method is used to produce aq. alcohol for distillation, in particular for the prodn. of industrial alcohol.

BRBL ★ D17 06315 D/05 ★FR 2453-218
Vertical cylindrical mixing vessel for liming sugar juice - enables extremely fine pH control in minimum floor space to be achieved
BRAUNSCHWEIG MASCH 19.02.79-DE-U04518
(05.12.80) C13d-03/02
24.01.80 as 001533 (17pp448)
The vessel is of the vertical cylindrical type and it is divided into superimposed, cylindrical chambers by perforated, horizontal partitions. A vertical, rotary shaft extends coaxially through the chambers and is fitted with agitator blades in some, at least, of the chambers.

The shell of the vessel is now extended downwards to contain a cylindrical receiver. The rotary shaft extends into the receiver where it is fitted with agitator blades. This receiver constitutes the principal liming zone while preliming is carried out in the superimposed chambers. Flow passages between adjacent chambers are fitted adjustable flow restrictors, e.g. valves, shutters etc.

Alternate chambers pref. have different agitator blades and internal profiles. This induces centrifugal circulation in one chamber and centripetal circulation in the next. Through one partition liq. flows upwards through an axial passage and downwards via edge passages. Adjacent partitions have reverse flow conditions. The edge passages can be fitted with pivoted, flow-control shutters which can be adjusted from the exterior.

By building the preliming chambers on top of the principal l receiver, the installation occupies min. floor space. Cont recycling via the preliming chambers facilitates extremel adjustment of pH value.

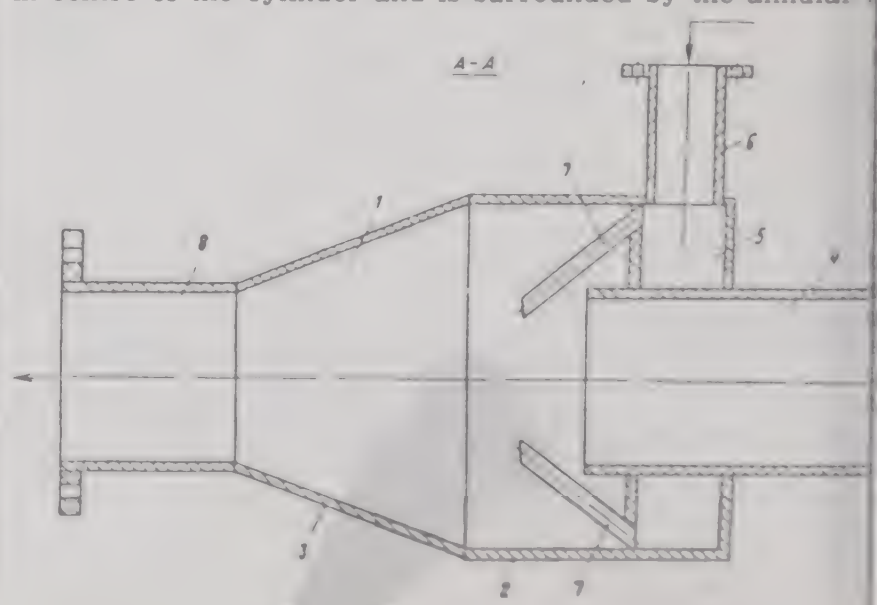
GIDR= ★ D17 07095 D/05 ★SU-
Hydrolytic sugar e.g. glucose, etc. prodn. solns. purificn. - in removal of acid impurities by extn. with butanol and/or tert alcohol
GIDROLIZPROM IND AS 25.05.77-SU-490902
(28.05.80) C13k-01/04
25.05.77 as 490902 (3pp314)
Acid impurities are removed from sugar solns. by treating with n-butanol or tert.-amyl alcohol or mixts. of these, at 18-30 and atmos. pressure. Prefd. is a 1:1-10 mixt. of n-butanol and amyl alcohol is used.

The method results in complete removal of organic aci mineral acid from sugar soln. obtd. by vegetable raw ma hydrolysis. It can be used in mfg. of glucose, xilitol etc.

In a typical process the contact phase ratio is 1:1-5. Extra dissolved in the hydrolysate or raffinate may be re-extd. benzene, using similar conditions to the first extraction.

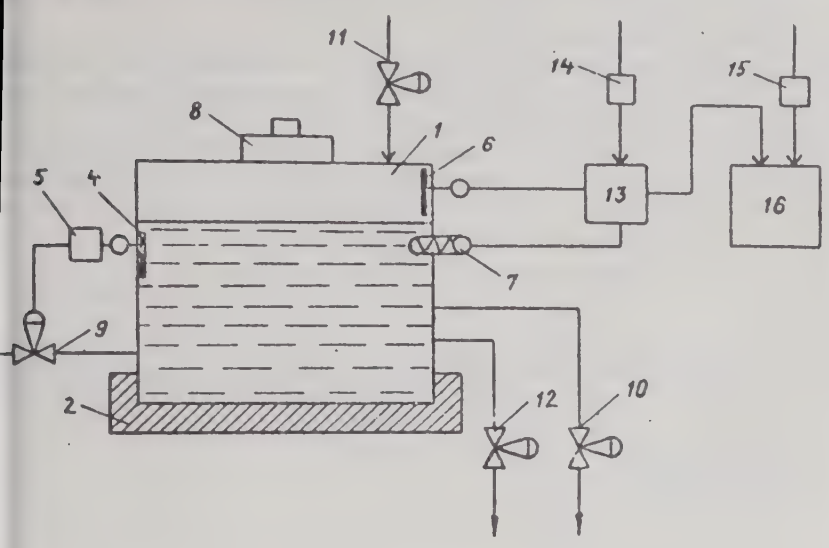
VOTE= ★ D17 07366 D/05 ★SU-7
Progressive pre-defecation of raw sugar beet juice countercurrent contact with lime and defecation saturation o side stream
VORON TECH INST 25.05.77-SU-510508
(05.06.80) C13d-03/02
25.05.77 as 510508 (3pp314)
Process for the progressive pre-defecation of raw sugar juice contactinthe juice in a countercurrent contact appts. with li increase the alkalinity of the juice in several stages;samplin juice at the stage where the alkalinity of the juice is 0.02-0.05% and pH 9.0-9.2; heating the sample to 85-90 deg. C; and defe saturating with 0.7-0.8% CaO on beet wt. to enhance the alkalin 0.02-0.05% CaO and pH 9.0-9.2. The defecation satd. juice is returned to the next stage in the contact appts. The process enh the purificn. of the juice and improves its sedimentation filtration props.

MOFO= ★ D17 07367 D/05 ★SU-7
Sugar juice thermal treatment unit - has mixing chamber cy with attached truncated cone controlling steam jets
MOSC FOOD IND TECH 17.11.77-SU-546054
(02.06.80) C13g-01/02
17.11.77 as 546054 (3pp89)
Accelerated coagulation of colloids and improved juice in the production are due to the mixing chamber of juice and steam chamber is made up of a cylinder and a truncated cone with base attached to the former. The outlet of pipe feeding the juice in centre of the cylinder and is surrounded by the annular



with nozzles at an angle of 40-60 deg. The nozzles are e outlet of the juice feed pipe.

★ D17 07368 D/05 ★SU-737-460
rup solids content monitor - has sealed container with unloading valve and with syrup level controller
IND AUTOMAT 13.12.76-SU-429319
25 (02.06.80) C13g-01/06
s 429319 (3pp89)
racy of monitoring the solids content in sugar syrup os is d with a hermetic container featuring a heater. The ce thermometer and pressure transducer are connected to a rough a switch, and when the pressure exceeds the set level e opens up for pressure relief.The level of juice in the r is maintained by a float valve while the volume of the pace in the container is selected to ensure thermal balance all pressure variation.Bul.20/30.5.80.



UGLI= ★ D17 07370 D/05 ★SU-737-462
Prodn. of lacto-lactulose syrup - by isomerisation of lactose with alkali and adding organic acid to improve lactulose stability
UGLICH BUTTER CHEES 23.03.77-SU-467955
(D13) (03.06.80) C13k-05
23.03.77 as 467955 (4pp314)
Lacto-lactulose syrup used in the dairy industry is obtd. by: forming a lactose syrup; isomerising the lactose to lactulose with an alkali; after 15-20 mins. adding an organic acid stabiliser to pH 5.5-6.5; filtering;thickening the isomerised soln.; crystallising excess lactose; and separating the lactose crystals.

Treatment with an acid during isomerisation prevents auto-catalytic decomposition of the lactulose. Pref. acid stabiliser is citric acid added in an amt. 0.115-0.125%.

WMAC- D17 05487 C/04 = US 4244-823
Centrifuge with closable outlet in basket bottom - in which closure is moved downwards from outlet by sleeve axially displaceable along centrifuge shaft by lever
WESTERN STATES MACH 17.08.78-US-934477
*J01 P41 Q66 + Q35 (13.01.81) *BE-878-300 B01d-33/06*
17.08.78 as 934477 (6pp1376)
Centrifugal basket supported on a spindle has a valve controlled opening surrounding the spindle at its base for discharge of centrifuged solids. The valve is positioned by and connected to the lower end of a sleeve surrounding the spindle. Rollers attached to a forked fulcrum sit in an open channel in the sleeve to operate the valve.

Valve can be safely opened without damage.

See Also

D13 US 4244748 D18 DS 2636597

D18: SKINS; HIDES; LEATHER; TOBACCO

D18 13296 Y/08 = DS 2636-597
co substitute material - comprises a carbohydrate treated one to form a specified carboxyl group concn.
ILIP MORRIS 15.08.75-US-604944
*(D17) (22.01.81) *DE2636-597 A24b-15*
6 as 636597 (8pp068)
able material is made from a film forming, oxidised ydrate material, e.g. (C6H1005)n (where n / 1200-6000) which ns at least 0.2 milliequivalents of carboxyl gps. per gram ydrate. The material is prepd. by treating the carbohydrate moisture content of 5-80 wt.% with a gas contg. 2-10 vol.% at 0-90 deg.C or by treating a soln. or dispersion of the ydrate with a dry wt. content of 4-15 wt.% with a gas contg. 2-% ozone at 0-50 (0-15) deg.C.
carbohydrate may be shaped into a film before or after the treatment and then used as wrapping for cigars, cigarettes, comminuted and used as filler. (DS)

D18 43734 C/25 = EP--22-587
. of colloidally stable beer - by adding polyphenol oxidase boiling wort
PARI SA CIE INT (UNIB) 07.06.79-FR-014556
*01.81) *FR2435-523 C12c-07/04 + C12c-05*
0 as 200496 (14pp367) (F) GB1384292 DS-128172 US3443958 6973 US2198221 US2179203 US2068738 FR-701669 CH-486555 DS-FR2147396 BE-406532 GB1232275 CH-335624 BE-344726 FR-E(AT CH DE GB IT LI LU NL SE)
dally stable beer is produced by adding a polyphenol oxidase before boiling the wort. The PPO is added in an amt. ent to convert polyphenols to polymers which ppte. together ne proteins present in the wort. The resulting ppte. is sepd. by ng the wort beyond or after boiling..
process yields a clear bright beer with high resistance to n haze formation without treatment with proteolytic enzymes er foreign substances.

ITES- D18 18108 A/10 = GB 1583-350
Hide drying machine - with automatically applied and released grips sliding on endless conveyor laths saves manual labour
IND TICINESE ESSICC 24.08.76-IT-026487
*(28.01.81) *DE2738-090 C14b-01/58*
23.08.77 as 035339 (11pp1358)
A dryer for skins has an endless conveyor moving the skins from and to an externally accessible loading and unloading zone through an enclosed drying region, and consisting of a rolling shutter with slats movable to and from each other. Each slat has two elements relatively longitudinally movable and carrying respective grippers for holding the skins.

Release elements upstream of the unloading zone engage and release the grippers and a conveyor drive in the zone moves the slats closer together in the zone. Each gripper is pref. slidably mounted on its respective slat and is biased by a return spring towards a piston near one edge of the conveyor. The arrangement provides effective stretching.

NISB D18 71610 A/40 = J8 1000-028
Cigarette filter for removing carbon mon:oxide - contains tannic acid-metal chelate complex and active carbon
JAPAN TOBACCO & SALT PUB 23.07.76-JP-087239
*A97 P15 (06.01.81) *J53099-399 + A24d-03/16*
23.07.76 as 087239 (6pp5)
Cigarette filter contains tannic acid-metal chelate cpd. and active carbon. The tannic acid-metal chelate cpd. is Fe tannate, Al tannate, Mg tannate, Ca tannate and Zn tannate. The tannic acid-metal chelate cpd. can be used either in the form of granules obtd. using bonding agent such as CMC-Na or in the form of the coating layer obtd. by partially coating active carbon. With the cigarette filter the taste and flavour of the smoke of cigarette is almost unchanged.

By combining tannic acid-metal chelate cpd. with active carbon, CO can be removed effectively without giving charcoal taste to the smoke. (J53099399).

SEPI/ ★ D18 07096 D/05 ★SU -735-636
Prodn. of vegetable source tanning agents - includes liquid diffusion extn. of amorpha plant seed pods
SEPITYI A E 12.04.78-SU-624376
(28.05.80) C14c-03
12.04.78 as 624376 (3pp314)
Tanning agents are obtd. from seed pods of the 'amorfa' plant, a member of the bean family. The seeds comprise 60% fruit and 40% pod. The tanning agents may be extd.by standard methods, e.g. diffusion at elevated temp.

The pods are extd. for 5 hrs. at 80 deg.C. Tanning agents are recovered in a yield of 5.60% on absolute dry material. The agents are then used in Russia leather and rigid leather tanning processes. Bul.19/20.5.80.

LEAT= ★ D18 07371 D/05 ★SU -737-463
Hides and skins through-feed liq. treatment unit - has reciprocating plate and elastic diaphragm between perforated conveyors
LEATHER SHOE IND RE 23.03.77-SU-465578
(03.06.80) C14c-15
23.03.77 as 465578 (5pp89)
Intensified wet treatment of hides or leather skins is due to the unit featuring an additional elastic diaphragm fitted in the clearance between conveyor and the plate. The plate is reciprocated and its surface facing the diaphragm has a flexible coating. Both the diaphragm and the back-up platform have coaxial holes while the platform is set clear in relation to the bath bottom, but attached to it. The skin handling conveyors are perforated and the drive includes actuating cylinders with rods attached to the plate.

PHIM D18 41635 X/22 =SU -738-495
Tobacco smoke filters - to reduce nitrogen oxide content, of activated aluminia impregnated with sodium permaganate and basic sodium cpd.
PHILIP MORRIS INC 10.02.75-US-548240
*E37 P15 (30.05.80) *US3957-059 A24d-01/06*
09.02.76 as 319489 (7pp)
Activated alumina compsn. comprises(a) activated alumina contg. less than 6 wt. % SiO2 (on Al203) with a surface area of more sq.m/g and a pore vol. of at least 0.2 cu.cm/g, impregnated 30 wt.% Na permanganate and(c) a basic Na cpd. in a mol.ra of 1/0.5-1/20,(d)with a moisture content of approx. 5-30 wt prods. are esp. useful as tobacco smoke filters giving good of nitrogen oxides, even after prolonged storage in the pre volatile components of the tobacco prod. and/or moisture.

The basic cpd.(c) may be e.g. NaOH, Na2CO3, Na phosp Na borates. The filter medium may be combined with appr wt.% activated carbon with a surface area of approx. 8 sq.m/g to give a prod. which also shows good removal of CO f smoke at room temp.Bul.20/30.5.80.

PHIM D18 13358 C/08 =US
Modifying tobacco by/product material, esp. stalks - by mil treatment and water-extn. esp. to remove nitrate salts
PHILIP MORRIS INC 02.08.78-US-930333
*P15 (13.01.81) *DE2931-313 A24b-03/14*
02.08.78 as 930333 (6pp1376)
Tobacco by-prod. is upgraded in an uncatalysed heat treatme which reduces the wt. by 10 to 35%, and a water extn. step removes water soluble components.

The by-prod. is pref. tobacco stems, dust, fines and blends the heat treatment step takes place at a temp. of 150 to 370 deg between 2 secs. and 5 hrs. in a N2,CO2, He or vacuum atmos. extn. pref. occurs at between 0.5 and 99 deg. C.

By-prod. does not have a woody taste.

NEWM/ ★ D18 07778 D/05 ★ZA 79
Appts. for shearing, crutching and wigging sheep - comprises onto which sheep is secured and is adjustable to lower and positions
NEWMAN F J 17.11.78-AU-006826
(09.09.80) C14b

D2: DISINFECTANTS; DETERGENTS

D21 : DENTAL; TOILET PREPARATIONS

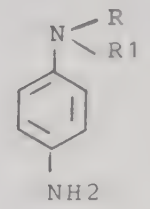
BRIM ★ D21 05695 D/05 ★BE -884-135
Hair compsn. contg. cationic polymer and amphoteric surfactant - retaining conditioning effect after shampooing
BRISTOL MYERS CO 24.06.80-US-160151 (02.07.79-US-054378)
A96 E19 (05.01.81) A61k-07/06
02.07.80 as 884135 (21pp597)
Compsn. comprises 0.4-10% of at least one cationic polymer, 0.2-20% of an amphoteric surfactant, sufficient acid to give a pH of 1-6 and an aq. support or vehicle. The ratio polymer (mer)/detergent mol. is 0.2-5; polymer (mer) being the number of mols. of polymer moieties in the compsn.

Compsn. makes the hair soft, easier to comb and more manageable and the effects are retained even after repeated shampooing.

OREA ★ D21 05725 D/05 ★BE -884-232
Hair dyeing compsn. - contg. p-phenylene-di:amine and N,N-substd. cpds. in amt. sufficient to inhibit formation of Bandrowsky base
L'OREAL SA 10.07.79-FR-017888
E14 (09.01.81) A61k
09.07.80 as 884232 (25pp597)
Compsn. contains in a cosmetic medium as oxidn. colourant p-phenylenediamine (PPD) and one or more substd. p-phenylenediamines of formula (I), where R is (hydroxy)alkyl and R1 is hydroxyalkyl the alkyl being 2-4C, and its salts. The mol. ratio of PPD:(I) expressed as free base is such that after addn. of an equal vol. of 20 vol. H2O2 and application to the hair for 30 mins., no Bandrowsky base is detected in the oxidising compsn. (formed by oxidative coupling of PPD with itself)

Partic. embodiments for (a) black to dark brown shades and (b) light to dark chesnut shades are (a) 1.5-2.5% PPD and PPD:(I) is 0.5 and (b) 0.2-1.5% PPD and PPD:(I) 0.5-1.

The compsn. enables a satisfactory depth of shade with the presence of cpds. (I) inhibiting the formation of Bandrowsky base.



(I)

OREA ★ D21 05726 D/05 ★BE -88
Hair dyeing compsn. - contg. p-phenylene di:amine and o-a phenol, and novel benzoquinone imine prepn. from these cpds.
L'OREAL SA 10.07.79-FR-017889
E14 (09.01.81) A61k
09.07.80 as 884233 (31pp597)
Compsn. contains in a cosmetic medium as oxidn. colourai phenylenediamine (PPD) or its salts and o-aminophenol (OAP) salts in a PPD/OAP mol. ratio such that after addn. of an equa of 20 vol. H2O2 and application to the hair for 30 mins. Bandrowsky base is detected in the oxidising compsn. (forme oxidative self-coupling of PPD).

Partic. embodiments for (a) dark shades and (b) light to me shades are (a) 1-2.5% PPD and PPD/OAP up to 2 and (b) less tha PPD and PPD/OAP up to 3. In the hair dyeing proces alternative is to apply an OAP contg. compsn. first followed compsn. contg. PPD.

A novel cpd. is formed by oxidative coupling of PPD and which is 2-amino-5-(p-aminoanilino)-N- (p-aminophenyl)-1 benzoquinone imine (I). The compsn. enables a satisfactory dep shade with inhibition of Bandrowsky base formation, cpd. (I) b formed instead.

D21 05781 D/05 ★CA 1092-030
antiperspirant water-in-oil emulsion compsn. - having gent in oil phase and antiperspirant in aq. phase
TOL MYERS CO 07.02.77-US-766295
.80) A61k-07/32
as 284874 (16pp558)
antiperspirant compsn. comprises 10.0-80.0% (wt.) (a) nt, 0.1-10.0% (b) emulsifier, 0.1-20.0% (c) powdered drying .0-60.0% (d) water, 1.0-30.0% (e) oil vehicle and 5.0-40.0% (f) pirant material. It is in the form of water-in-oil emulsion, active antiperspirant ion species in the water phase and the gent in the oil phase.
rying agent is kept out of contact with the internal aq. phase compsn. is released from the can. When applied to the skin, the oil vaporises, allowing the drying agent to reach and or absorb water originally contained in the internal aq. phase er moisture at the application site, reducing the 'wet feel' of lied prod.

★ D21 05942 D/05 ★DE 3023-402
y-alkylated amine gp.-contg. fatty acid ester derivs. - used in ics, e.g. hair-setting lotions, shampoos, skin moisturisers and rs, bath foams
KOSLOVENSKA AKAD 16.05.80-CS-003425 (21.06.79-CS-92)
(22.01.81) A61k-07 C11d-03/30
as 023402 (+ 21.6.79(3)-CS-004293/4/6) (21pp200)
ic compsns. contain, as active ingredients, 0.02-50 vol.% otal vol., of one or more hydroxyalkylated amine end gp. - fatty acid esters having formulaR-COO-CH2-CH(OH)-CH2 - (I) (where R is 1-17C alkyl or alkenyl; R1 is 2-hydroxyethyl, 3-ydroxy-1-or 1-hydroxy-2-propyl, 1-hydroxy-2-, -3-, -4- or 2-y-3-butyl; andR2 is R1, R-COO-CH2-CH(OH)-CH2-or H).
llow moisture penetration into skin while forming a fatty ive film against drying out by wind or sun;(ii) have a high to hair without preventing shampooing and protect hair excessive de-greasing; (iii) combine lubrication and lar adhesion; (iv) are non-toxic and do not irritate the skin increase foam-stability of bath-foams, e.g. by 30%.
compsns. are used as hair-lotions improving set, shampoos air-fixing effects, softening and moisturising skin lotions and ons and bath foams.

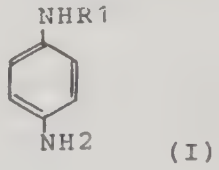
★ D21 06219 D/05 ★EP --22-647
hylamino-indan-di-one useful as powerful UV absorbent - by reacting salicylaldehyde, betaine and acetic anhydride in p process
KKAIDO SUGAR KK 17.07.79-JP-089885
E13 F06 (21.01.81) C07c-97/07
as 302289 (15pp960) (E) NO-CITNS. E(AT BE CH DE FR GB U NL SE)
dimethylamino) indan-1,3-dione (I) is a novel cpd. It is prepd. cting salicylaldehyde, betaine and acetic anhydride in molar 1-3:1-20 by heating, pref. at 100-200 deg. C..
(I) is a UV absorbent and excels 'Tinuvin 326' (RTM; benzo- type) in its UV absorption capacity. (I) is used in sunburn ting cosmetics, paints, plastics and synthetic fibres or as an ediate in the synthesis of dyes.

★ D21 06224 D/05 ★EP --22-655
ceramic dental article or tool - with mica as main crystal

RNING GLASS WORKS 13.07.79-US-057399
P32 (21.01.81) A61c-03 A61c-13/08 A61k-06/02 C03c-03/22
as 302318 (24pp1251) (E) GB1441082 US3732087 DS2347591 UD-DE2711219 US3689293 E(AT BE CH DE FR GB IT LI LU NL
al construct or tool consists of a glass-ceramic having a mica, tetrasilicic fluoromica, as the predominant crystal phase. ticle is prepd. by melting a batch of glass-forming materials, oling to give a pre-form which is remelted, then shaping the form a body of intermediate configuration.
body is then heat treated to cause in situ crystallisation, ting it into an intermediate-shaped article with mica as the rystal phase. This is then formed to the required shape. Pref. olten glass preform is added to a heated mould made by ment casting from a pattern made to corresp. to the shape of uired dental surface..
ion models, tools, appliances, attachments or prosthetic s can be made having the appearance, expansion coefft. and al conductivity of tooth enamel. Mechanical strength is as s that of composite tooth structures, and the articles are easily and machined.

BARR/ ★ D21 06228 D/05 ★EP --22-662
Slow release breath freshening compsn. - contg. microencapsulated flavouring, esp. for denture wearers
BARR A 13.07.79-US-057449
(21.01.81) A61k-06 A61k-07/16
10.07.80 as 302347 (12pp1251) (E) NO-CITNS. E(AT BE CH DE FR GB IT LI NL)
Slow-release, breath freshening compsn. comprises many microencapsulated droplets of liq. flavouring (I) and a base. These microcapsules dissolve in the saliva to release (I). Pref. compsns. contain 3-15 wt.% microencapsulated (I), esp. a mint flavouring, and the base is esp. a mixt. of petrolatum and a gum, pref. together with a mineral oil and titanium dioxide. The compsn. is particularly formulated as wafers with an adhesive coating.
Typically the microcapsules are 6 wt.% of the compsn. and the base is 51% karaya gum; 30% petrolatum: propylparaben 0.1%; mineral oil 12.4% and titanium dioxide 0.4%..
The compsns. are esp. useful for denture wearers to mask bad breath and to provide a cooling effect on the palate. They are applied to the denture itself or to the inner cheek gum line.

OREA D21 14036 A/08 = GB 1583-599
(N)-alkoxyethyl or alkoxy-propyl para phenylenediamine cpds. - used in hair dyeing compsns.
L'OREAL SA 20.08.76-FR-025386
*E14 (28.01.81) *BE-857-939 C07c-93/14 + C07c-143/82 D06p-01/32 D06p-03/08*
18.08.77 as 034787 (16pp918)
Keratinic fibres are dyed by applying at least one cpd. of formula (I) or an acid salt of (I). R1 is -(CH2)n-OR, R is (m)ethyl and n is 2 or 3. Pref. the cpd. is applied in an aq. vehicle, the compsn. contg. 0.001-6wt.% (I) and having a pH 8-11.5 (pref. 9-10). The compsn. pref. also contains ammonia, an alkylamine, sodium or potassium hydroxide or carbonate or ammonium carbonate. It may also contain at least one other oxidn. dye (pref. paraphenylenediamine or paraaminophenol) and at least one coupler (pref. a metaphenylenediamine, metaaminophenol, 6-hydroxybenzomorpholine or 2,6-dimethyl-3-acetylaminophenol.
Method may be used to dye hair as it is safe, and the shades are stable, partic. resistant to light, inclement weather and shampooing.



(I)

DAIB/ D21 51679 A/29 = GB 1583-714
Mould lining for dental prosthesis - with synthetic jaw plates fitted with screwed marking stud
DAIBERL K 28.03.77-DE-U09769
*P32 (28.01.81) *BE-864-854 A61c-09*
23.03.78 as 011831 (4pp1358)
A registering instrument for dental prosthesis, occlusal diagnosis and/or occlusal therapy has rigid plastics bit impression plates for upper and lower jaws, one with a bore in which a threaded support pin is fitted capable of bearing against the other plate.
The thickness of the plates is pref. 0.5-1.5 mm and the plates are given a matt finish or are roughened. The jaws register position is pref. determined by fitting the plates and moving the jaws so that the pin describes a deflection angle on the other, and the other plate is drilled to provide a registration bore at the apex of the angle, then the plates are fixed together with adhesive while the pin engages in the bore.

BIGG/ ★ D21 06418 D/05 ★GB 2052-666
Self-tapping surgical or dental pins - with great flexibility, formed from vacuum annealed steel
BIGGS A J 02.05.80-GB-014826 (20.06.79-GB-021416)
P31 P32 (28.01.81) A61b-17/18 A61c-05/08
02.05.80 as 014826 (7pp478)
Self-tapping surgical or dental pin is formed of vacuum-annealed orthopaedic stainless steel.
The pin pref. forms part of a disposable surgical hand wrench (described in GB 1528245).
A prefd. orthopaedic steel is the alloy En58J which contains 8-12% Ni; 17-20% Cr; 2.5-3.5% Mo; not less than 0.2% Si; not more than 0.12% C, 2% Mn, 0.045% S, and 0.45% P; with remainder Fe and unavoidable impurities. Opt. the steel may also contain small amts.of Ti and Nb, and (esp. for dental pins) 0.2% Se.
Vacuum annealing is pref. in an Ispen furnace at 1025-1075 pref. 1050 deg.C/in vacuo for 15-45 pref. 30 min. Steel is then cooled to room temp. under N2. The vacuum annealing in addn. to hardening the pins, provides them with extreme flexibility. Thus after insertion into a pre-drilled hole bored in hard tissue, the pin may be bent by more than 90 deg.

TOYU- ★ D21 06677 D/05 ★J5 5151-100
Shampoo compsn. with high detergency - contains alkali metal or alkanolamine salt of opt. satd. higher fatty acid, amphoteric surfactant and aminoacid surfactant
TOHO YUSHI KK 12.05.79-JP-057629
E19 (25.11.80) A61k-07/06 C11d-01/18 C11d-09/02 C11d-10/04
12.05.79 as 057629 (3pp117)
Shampoo compsn. contains (a) 5-30% alkali metal or alkanolamine salt of opt. satd. higher fatty acid; (b) 3-30% amphoteric surfactant of alkylimidazolebetaine, alkylacetic acidbetaine, alkylamino acid type, etc.; and (c) 2-20% aminoacid surfactant, e.g. alkali metal or alkanolamine salt of N-acyl-L-glutamic acid, etc., together with other various additives, e.g., alkylolamide (deriv.), lanolin, lanolin alcohol, monoglyceride, sulphated oil, opt. satd. higher alcohol, polypeptide, cysteine, lecithin, thickening agent, gelling agent, antibiotic, dye, perfume, etc., as needed.

Compsn. has excellent detergency for hair without damaging the hair or irritating the eyes and skin, and gives an excellent texture and softness to the hair. Compsn. is compatible with soap and also with hard water. Compsn. prevents the occurrence of dandruff in the scalp.

YOKO/ ★ D21 06716 D/05 ★J5 5151-507
Cosmetic for removing freckles - contains thianthol as active component
YOKOYAMA R 14.05.79-JP-058020
B05 E19 (26.11.80) A61k-07
14.05.79 as 058020 (2pp42)
A cosmetic (I) contg. thianthol (II) is new. (I) is a cosmetic having effective for removing freckles on the skin. (II) is a mixt. of dimethyl thianthrene and ditoluene disulphide, and is obtd. by the reaction at 120-130 deg.C between toluene and S in the presence of catalyst e.g. aluminium chloride. After the completion of the reaction, water is added to the reaction mixt., to decompose Al chloride, water-layer is removed and the residual liq. is distilled under vacuum, to obtain (II) as yellow oilish substance.

YOKO/ ★ D21 06717 D/05 ★J5 5151-508
Hair tonic contg. chlorinated peppermint oil - which also has antiseptic effect
YOKOYAMA R 14.05.79-JP-058021
(26.11.80) A61k-07/06
14.05.79 as 058021 (2pp42)
A hair tonic contg. chlorinated peppermint oil (I) is new. Solvent, emulsion and ointment contg. (I) have an effect as hair tonic, as well as an antiseptic effect.

(I) is obtd. by the reaction between peppermint oil and chlorine gas in the presence of a catalyst such as iron oxide, copper oxide, iron chloride, antimony chloride, etc. (I) is also obtd. by the reaction in absence of the catalyst under irradiation of light, but the effect as hair tonic of thus obtd. (II) is relatively low.

(I) is dark brown liquid and does not crystallise on cooling to -20 deg. C. Although the structure of (I) is not clear, it is thought that the substitution of chlorine for hydrogen of peppermint oil forms (I), because redn. of (I) with zinc affords the native peppermintoil.

ASHM/ ★ D21 07567 D/05 ★US 4244-689
Dental implant for tooth replacement - prepd. from poly:methyl-methacrylate without polymerisation catalyst, of defined porosity
ASHMAN A 27.06.78-US-919711 (22.12.75-US-643405)
A96 P32 (A14) (13.01.81) A61c-08
27.06.78 as 919711 (24pp478)
Implant includes a support for a tooth crown which consists of (a) a lower portion, and (b) a neck portion. The lower portion fits mating alveolar socket so that the top is level with the a ridge. The neck portion has a cross-section which matches the section of a continuous tooth crown, and is connected to the to lower portion so that the top of the neck is level with the g sulcus.

The entire exposed surfaces of both portions consist of (as plastic) pure polymethylmethacrylate (I) but no polym catalyst. The surface has exposed interconnecting pores ada promote only connective tissue ingrowth from surro subcutaneous and alveolar environments. The porous surfa preselected sizes (50-150 microns), while the interconnected extend to a depth at least 2 mm.

The implant is inexpensive, non-toxic, and is rapidly prepd. desired shape. In addn., the implant has a pore size which pro ingrowth and adhesion of periodontal membrane tissue, etc.

HUBE D21 19654 A/11 = US 4
Fluoride tooth:paste compsn. suitable for unlined aluminium contg. alkaline earth metal additive to inhibit corrosion
HUBER J M CORP 24.08.77-US-826901 (15.09.76-US-723345)
*B06 M14 + Q32 Q34 (13.01.81) *BE-858-528 C04b-31/16 C09c*
28.09.78 as 946678 Div ex 4159280 (9pp924)
Abrasive compsn. for incorporation into a therapeutic tooth consists of a dentifrice grade silica polishing agent which ha treated with sufficient food grade alkaline earth metal cpd. se from (hydr)oxide, nitrate, chloride, acetate or formate of C and/or Sr. The silica functions as a carrier for the alkaline metal which is present in an amt. of 168-7000 ppm.

The compsn. provides abrasive characteristics for the tooth compsn. at RDA values of 200-400 and prevents fluoride-c corrosion ahd staining of an unlined Al tube.

MONS ★ D21 07682 D/05 ★US 42
Di:calcium phosphate di:hydrate compsns. - with imp stability, contg. tri:magnesium phosphate, pyrophosphate poly:phosphate salt
MONSANTO CO 29.05.79-US-043413
E33 (13.01.81) C01b-15/16 C01b-25
29.05.79 as 043413 (5pp478)
Di-Ca phosphate.2H2O (I) compsn. also contains (by wt. of (I 0.1-5% (P_2O_5 equiv.) pyrophosphate complex (II): (b) 0.1-5% phosphate (III); and (c) 0.1-3% of a non-toxic polyphosphate salt

Pref. compsns. contain (by wt.) 0.5-2.5% (by wt. of P_2O_5) of (I 3% (III) (esp. tri-Mg phosphate.8H2O), 0.3-2% (IV) (pref. pen tripolyphosphate), and pref. also 0.1-3% esp. 0.3-1% of an metal orthophosphate. Compsns. are pref. used with monofluorophosphate, and also with conventional polishing a humectants, sweeteners, etc. Toothpastes contain 20-60, pref. 3 by wt. of the compsn.; toothpowders contain up to 95% by wt. compsn.

Compsn. has improved soluble fluoride stability, provides gr amts. of soluble fluoride after prolonged storage (i.e. when as compsn. with fluoride), and is partic. suitabble for the use as a polishing agent.

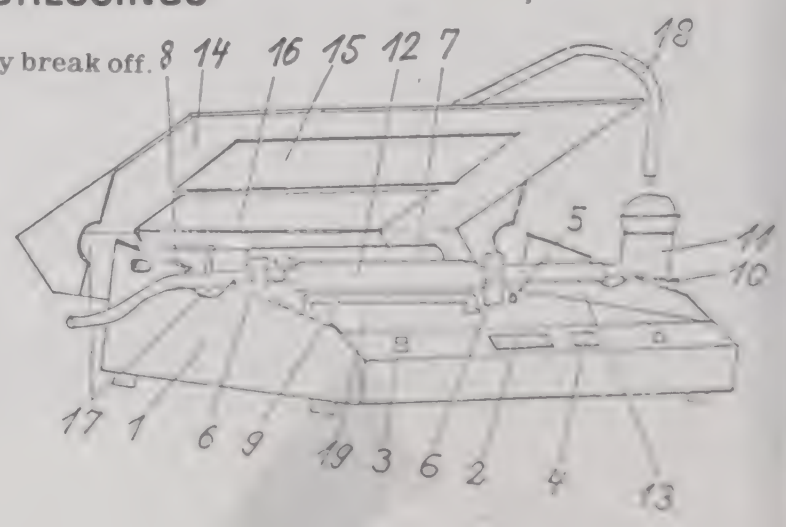
See Also
D13 GB 2052542 D23 DE 2925176

D22: BANDAGES; DRESSINGS

STAD/ ★ D22 05848 D/05 ★DE 2926-523
Blood etc. therapeutic treatment and diagnostic appliance - uses ultraviolet lamp for irradiation purposes and to convert oxygen into ozone
STADTLAENDER M 30.06.79-DE-926523
S05 P34 (S03) (22.01.81) A61k-41 A61l-02 A61m-01/03
30.06.79 as 926523 (8pp39)
A therapeutic appliance for the ultraviolet treatment of fluids such as blood uses an ultraviolet lamp both for the activation of oxygen to ozone in an oxygeniser and for the irradiation of the fluid. The oxygen-ozone mixture is injected into the fluid to produce a foam.

Reflectors are arranged inside the casing to intensify the radiation action. The irradiation tube is a straight quartz glass vessel, held in self-locking clips.

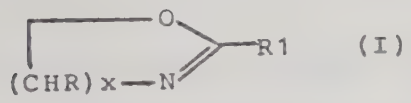
This appliance is simple to produce and to operate. It is easy to sterilise and to clean. The glass vessels have no exposed hooks which may break off.



D22 25402 V/14 = DS 2335-329
solation tent - has access port for introducing or removing hout allowing unsterilised air to enter the tent
ONAL RES DEV CORP 11.07.72-GB-032380
*P33 (22.01.81) *FR2191-944 + A61g-11*
s 335329 (9pp38)
ion tent, made of PVC, in which laboratory animals or atients are kept under gnotobiotical conditions, requires an for the introduction or extraction of materials or nts. To prevent the sterile air in the tent from being lated, the opening is extended by a double-wall cylinder orated ribs along its inner surface. Air is blown through the ons from a compressor via a sterile filter.
eates a reliable seal for the opening.

D22 29118 Y/17 = DS 2547-650
nt laminates for use as napkins etc. - with a fabric layer ith an absorbant carbohydrate deriv.
CHST AG 24.10.75-DE-547650
*07 P34 P73 + P21 P27 P32 (22.01.81) *BE-847-515 A41b-A61f-13*
s 547650 (9pp39)
absorbent laminate for use as sanitary towel, bed underlay, s napkin consists of a carrier of cellulose flocks which is led on one or both sides by several absorbent tissue layers. layer has been coated with a modified cellulose ether, pref. nked carboxy methyl cellulose.
xt layers are tissue paper and a cover mat. If one side is to vious to body fluid, it is lined by a fluid repellent foil. pad has excellent absorption and retention properties.(DS)

★ D22 06003 D/05 ★EP --22-148
kes of poly-oxazoline or poly-oxazine and poly-halide anion - luding hydrogen or alkali (ne earth) metal supplied cation d as sanitising agent
CHEMICAL CO 16.04.79-US-030396
A97) (14.01.81) A01n-59/12 C08f-08/18 C08f-134 C08g-73 C08l-79
as 101909 (28pp966) (E) US4144211 E(DE FR GB NL)
soluble complex comprises (a) polymer of ring opened units azoline or 2-oxazine monomer of formula (I) (where R is H or yl; R1 is up to 10C alkyl, phenyl or inertly substd. alkyl or and x is 1 or 2), (b) IBrCl- or a polyhalide anion (X(Y)2n)- X and Y are individually Cl, Br or I, but not both Cl and n is 1, and (c) one or more independently supplied cation of H or e earth) metal.
lexes of (a) and (b) only are also claimed..
omplexes are used as sanitising agents and are more stable or art complexes of either poly-2-oxazoline or poly-2- oxazine ogen or complexes of polyvinylpyrrolidone and polyhalides.



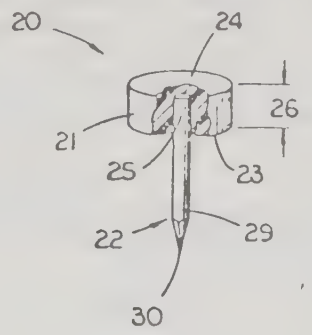
★ D22 06027 D/05 ★EP --22-227
e absorbent laminate contg. crushed polyelectrolyte film - n layers of wicking substrate, useful in diapers
W CHEMICAL CO 09.07.79-US-055586
F07 P21 P32 P73 (14.01.81) A41b-13/02 A61f-13/18 B32b-27/12
as 103652 (24pp1251) (E) US4076673 US3890974 US3670731 184 FR2173047 E(AT BE DE FR GB IT SE)
ble hydrophilic absorbent laminate, flexible at low and high e humidities, comprises (a) a central discontinuous and d film of crosslinked, water-swellable polyelectrolyte (A), is water-soluble in salt form, and (b) a layer of wicking ate bonded to both sides of this film.
electrolyte (A) is esp. a carboxylated polyelectrolyte lightly nked with a polyvalent metal ion, and the laminate is an d film with density 0.3-1.1 g. per cc. It pref. also has a water- meable bottom sheet, esp. of polyethylene, and a water- able face sheet, esp. a non-woven fibre mat..
laminates are esp. useful as diapers as they have flexible, ke feel and absorb liq. rapidly.

★ D22 06046 D/05 ★EP --22-284
sterilisation indicator contg. tablet of fusible material - which es a binder, e.g. polyvinyl pyrrolidone
ZO NV 11.06.79-US-047955
E14 S05 P34 (S03) (14.01.81) A611-02/26 G01n-31/22
0 as 200537 (18pp1251) (E) FR2307544 US3981683 GB1367703 9877 GB1027417 GB1215891 CH-425276 E(AT BE CH DE FR GB LU NL SE)

Steam sterilisation indicator consists of a backing to which is attached a fusible material (A) melting at a predetermined temp. which is lower in the presence of steam than in its absence. A wicking strip is positioned close to (A) so that, when molten, (A) will move along it at a rate proportional to the steam temp. A steam-permeable cover encloses (A) and the wick and is attached by an adhesive.
The new feature is that (A) includes a binder, specifically polyvinylpyrrolidone, to keep it in tablet form until the predetermined temp. is reached. The amt. of binder (esp. 1-3 wt.% of the tablet) determines the rate at which molten (A) moves along the wick. Pref. (A) is salicylamide and can include a dye, esp. Spirit Soluble Fast Black RE or Spirit Soluble Orange RR..
The device can be adjusted to detect particular sterilisation temps. and integrates time and temp. It is easier and cheaper to make than known indicators and can be made much shorter (e.g. 2 inches long) so saves on materials.

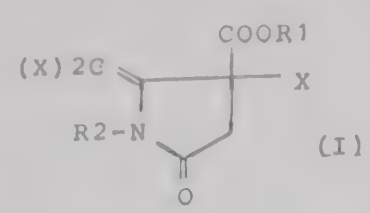
PROC ★ D22 06049 D/05 ★EP --22-289
Antimicrobial compsn. for fabricating medical devices - comprises polymer matrix having antimicrobial carboxylate releasably incorporated in it
PROCTER & GAMBLE CO 29.06.79-US-053619
A96 B07 P34 (14.01.81) A01n-37/02 A61k-09/70 A61l-15/03 A61m-25
23.06.80 as 200597 (30pp914) (E) US3854480 GB-731097 US2466663 US3695921 US3598127 GB1348340 E(BE DE FR GB IT NL)
An antimicrobial compsn. comprises a polymer matrix having releasably incorporated in it one or more carboxylate antimicrobial agents (I). Pref. the matrix is medical grade silicone elastomer and contains 0.01-60 wt. % of (I) which is in the form of the free acid or a salt.
Opt. the compsn. also contains up to 40 wt. % of a non-antimicrobial proton donor (II) to control the rate of release of (I)..
The compsn. can be fabricated into a wide variety of medical devices, esp. urinary catheters, intravenous catheters, prostheses, wound dressings, liner films for incontinence pads, etc. The antimicrobial agent (I) diffuses from the walls of the device to form an antibacterial and antifungal barrier on the surface of the device and thus reduces the risk of nosocomial infections. In the form of discrete bodies, the compsn. may be placed in a container, e.g. of an intravenous fluid set, through which a fluid is flowing, thereby to provide in-line release of antimicrobial agent into the fluid.

NELS/ ★ D22 06053 D/05 ★EP --22-308
Prosthesis cement spacer - comprises pointed stainless steel wire projecting from solid acrylic bone cement cylinder
NELSON C L 02.07.79-US-054027
A96 P32 (14.01.81) A61f-01
17.04.80 as 301226 (23pp1358) (E) FR2242068 US4092741 US4044170 US3641590 FR2204392 FR2350824 E(AT BE CH DE FR GB IT LI LU NL SE)
A spacer to control cement thickness between prosthesis and bone comprises a solid cylinder with a concentric anchor pointed wire extending from the base and with a length anchored in the cylinder. The cylinder is pref. of acrylic bone cement and has a diameter of 3-7 mm., and the wire is of stainless steel with a diameter of 0.5-1.0 mm., extends within the cylinder for its full length and projects for 3-6 mm.



FARH ★ D22 06168 D/05 ★EP --22-551
2-Di:halo-methylene-3-carboxy-3-halo-5-oxo pyrrolidine cpds. - useful as fungicides, bactericides and algicides
HOECHST AG 13.07.79-DE-928305
C02 E13 G02 (21.01.81) A01n-43/36 C07d-207/38
09.07.80 as 103906 (22pp367) (G) DE2055075 E(AT BE CH DE FR GB IT LI NL)
2-Dihalomethylene 1-R2-3-COOR1-3-halo-5-oxo pyrrolidines of formula (I) are new:
(R1 is H or 1-4C alkyl;
R2 is H, 1-4C alkyl, (1-4C alkoxy)carbonylmethyl, cyclohexyl, benzyl, or phenyl substd. by 1-4C alkyl, halogen, NO2, carboalkoxy (sic), 1-4C alkoxy, trihalomethyl or (1-4C alkoxy)carbonyl;
X is halogen)..

Cpds. (I) have fungicidal, bactericidal and algicidal activity and can be used for plant protection, as preservatives for wood, paints, cutting oils, etc.



ROHM ★ D22 06222 D/05 ★EP --22-653
N-Alkenyl or- alkynyl-substd. urea derivs. - useful as arthropod repellents
ROHM & HAAS CO 10.07.79-US-056179
B05 C03 E16 (B03 C02 E13) (21.01.81) A01n-43/36 A01n-47/28 C07c-127 C07d-273/04 C07d-295/20
09.07.80 as 302315 (19pp914) (E) FR1269348 E(CH DE FR GB IT LI NL)
Urea derivs. of formula (I) are new

R1R2N-CO-NR3R4(I)

(R1 is alkenyl or alkynyl;
R2 is 1-8C alkyl, alkenyl, alkynyl, cycloalkyl or phenyl-(1-8C)alkyl;
R3 is H;
or R2 and R3 together form dimethyleneoxy (-CH2-O-CH2-);
R4 is alkyl, alkoxycarbonylalkyl or cycloalkyl;
or R3 and R4 together complete a 5- to 7-membered heterocyclic ring)..

Cpds. (I) are arthropod repellents. They can be dild. with suitable liqs. or solids and used to repel common flying and crawling insect pests by appln. to clothing, skin, tents, livestock, granaries, silos, food packaging elements, etc.

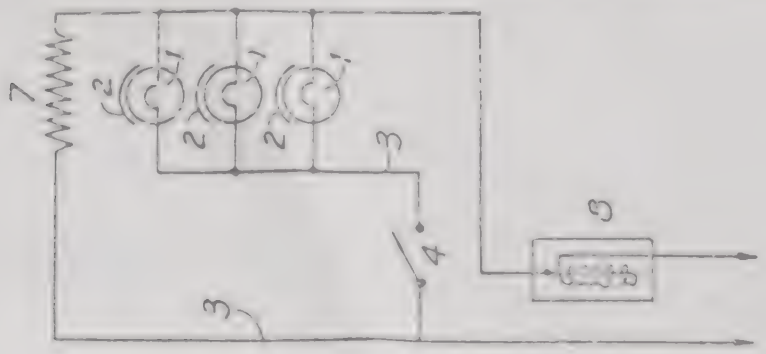
ANVR ★ D22 06254 D/05 ★EP --22-724
Bone implants or prostheses - made of crystalline limestone
AGENCE NAT VALORISATION 12.07.79-FR-018120
L02 P32 P34 (21.01.81) A61f-01 A61l-17
11.07.80 as 401055 (19pp367) (F) FR2361437 FR2223325 US3890107 FR2413343 FR2301488 FR2283104 FR2243915 US4149894 US3919723 US3918100 US3787900 GB1487181 DE2725665 DE2724972 DE2717506 DE2652611 3.Jnl.Ref E(AT BE CH DE GB IT LI LU NL SE)
Biodegradable bone implants or prostheses are made of or contain a crystalline form of limestone, pref. aragonite or calcite..

Crystalline limestone retains higher strength than hydroxylapatite in liq. media, and its gradual dissolution promotes progressive replacement by newly formed bone tissue.

VASS/ ★ D22 06278 D/05 ★FR 2452-878
Device for sustained release of active ingredients - comprising deliquescent material in perforated container
VASSEUR J 04.04.79-FR-008880
(05.12.80) A01n-17/08
04.04.79 as 008880 (4pp367)
Device for sustained release of insecticides, deodorants, disinfectants or perfumes comprises a perforated container contg. a finely divided deliescent material (I) in which the active ingredient is incorporated.

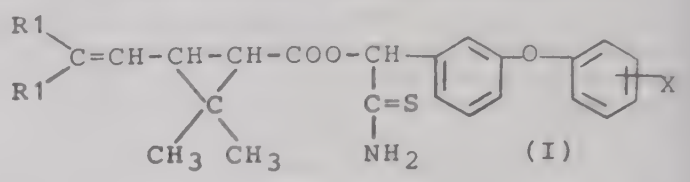
(I) absorbs atmospheric moisture and gradually liquefies, thus releasing the active ingredient over long periods.

GINE/ ★ D22 06287 D/05 ★FR 2452-934
Space heating unit - simultaneously regenerating air by destruction of bacteria and ozone prodn. by photoionisation
GINER RIBES D 04.04.79-ES-479292
E36 S05 X27 P34 Q74 (05.12.80) A61l-09/22 F24h-03
03.04.80 as 007593 (5pp448)
Space heating unit simultaneously regenerates the air by destroying bacteria and producing ozone. Regeneration is by photo-ionisation. Conc. luminous rays are generated between two opposed reflective



walls. The walls converge to a narrow gap above the s
radiation compared with a much wider gap below the source
Air rising from the source has to pass through a theos
controlled resistance heater in order to reach the narrow ex
the top of the walls.

CIBA ★ D22 06307 D/05 ★FR
Alpha-thioamide 3-halo:phenoxy-benzyl cyclo carboxylate(s) - esp. 2,2-di:methyl-3-2',2'-di:chl cyclopropane carboxylic acids, are insecticides, acaric miticides (BR 25.11.80)
CIBA GEIGY AG 07.02.80-CH-000981 (02.04.79-CH-003047
C03 E14 F06 (05.12.80) A01n-53 C07c-153/06 C07c-161
31.03.80 as 007203 (17pp395)
Alpha-thioamide-3-(X-substd. phenoxy)-benzyl esters dimethyl-3-(2',2'-di-R1 vinyl)-cyclopropane carboxylic a formula (I) are new (where R1, X independently are F, Cl or
Used as antiparasitic esp. insecticide and acaricide used t animals, plants and textiles. (I) are partic. useful in pr ornamental plants against phytophages, cotton against Spo littoralis and Heliothis virescens and vegetables Leptinotarsa decemlineata and Myzus persicae.



SAMW/ ★ D22 06332 D/05 ★GB
Method of forming wound covering - by applying two solu raised pattern surface of covering to form tacky surface
SAMWAYS B 06.10.77-GB-041538
A96 P32 P34 P42 (28.01.81) A61f-13/02 A61l-15/06 B05d-07
19.05.78 as ------ (3pp295)
Wound covering is produced using a patterned surface whi design in intaglio or relief. A layer of aq. soln. of a suitabl salt contg. a wetting agent is deposited on the surface. E removed by a doctor blade. A layer of a soln. of a water solu forming material is superposed on the doctored layer composite is then dried. Pref. the covering is tackily secu film backing.

The wound covering is of the type described in BP 138453 describes coverings capable of adhering to moistened muc skin surfaces. Pref. the patterned surface comprises a butyl plate which has a patterned area in intaglio or relief, with unpatterned areas having at least one dimension less than 0.1

ETHI D22 48092 A/27 = GB
Absorbent multifilament suture with improved knotting pro which is coated with a fatty acid salt and a film forming p (BE 15.6.78)
ETHICON INC 15.12.76-US-751002
*A87 F06 P34 (28.01.81) *DE2755-344 C10m-07/26 D06m-13*
14.12.77 as 051988 (6pp974)
Novel synthetic multifilament sutures are coated with 2-15 w compsn. comprising a mixt. of a water-insoluble salt of an at fatty acid and a film-forming component at a ratio of 1:4-4:1.

Pref. the salt is of Ca, Mg, Ba, Al or Zn. Pref. it is of at leas 22C fatty acid. It is esp. of Ca or Mg and a mixt. of stea palmitic acids. The film-forming component is esp. a copol lactide and glycolide contg. 15-85 mol.% of dilactyl residues.

The coatings act as a lubricant which prevent grabbiness tie-down performance. The coatings, like the filamen absorbable by the body.

PROC D22 19665 A/11 = GB
Disposable absorbent article esp. for medical and surgic comprising surfactant treated interlayer under porous top
PROCTER & GAMBLE CO 10.09.76-US-722252
*A96 P32 P34 + P21 P73 (28.01.81) *BE-858-568 A41b-13/0*
09.09.77 as 037770 (7pp1358)
A disposable diaper has an absorbent core with a porous t joined to an impervious backing sheet to encase the surfactant treated intermediate layer is formed by a substrate or a surface layer of the absorbent core and is between the topsheet inner surface and backing sheet.

The surfactant is pref. a nonionic ethylene oxide/propyler block condensation polymer with a concn. of 10-0.001 g/squa treated layer. A discrete substrate is pref. tissue paper with weight of 12-14 lb/3000 ft2 with an air permeability of 100 ft3/n

The treated layer improves the surface runoff characteris wide varity of topsheets without preventing them providin outer surface.

D22 86111 A/48 = GB 1583-622
sing liquid manure esp. of pigs and poultry - using
ehyde and peroxy cpds.
TSCHE GOLD & SILBER 26.05.77-DE-723753
*P34 + P11 (E12 E37) (28.01.81) *BE-867-389 C05f-03*
as 018944 (8pp918)
anure is deodorised and noxious gases removed by the
ction of formaldehyde and at least one peroxo cpd. pref.
ogether one or more times into the liq. manure.
the formaldehyde and peroxo cpd. are used in a wt. ratio of
and pref. the peroxo cpd. is hydrogen peroxide, urea
hydrate, potassium peroxomonosulphate, sodium, potassium
monium peroxodisulphate, sodium percarbonate or a
boxylic acid.
od is used esp. to deodorise pig and chicken manure and to
problems caused by the evolution of noxious gases in animal

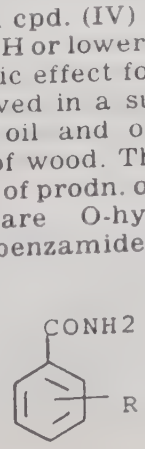
★ D22 06361 D/05 ★GB 2052-265
nt metal or boron cpds. and carboxylic acid radical - used in
preservation against fungal attack
NCHEM LTD 18.06.80-GB-019870 (25.06.79-GB-022049)
E19 F09 (C03) (28.01.81) A01n-31/08 A01n-37/02 A01n-59/14
) as 019870 (4pp476)
r is preserved by impregnation with a fungicidal compsn.
ising at least one metal-organic cpd. which contains boron, at
ne divalent metal element or metal radical, the boron and the
atom or atoms being linked through oxygen atoms, and at
ne carboxylic acid radical, together with a suitable carrier.
tion against wood-decaying fungi such as Coniophora puteana
eved.
fungicidal properties of zinc, copper and other divalent metals
proved not only by combining them in cpds. contg. synthetic
cids, which is known, but also by combining them in cpds.
boron. Employing the present compsns. much less metal is
ed than in previous compsns. to give adequate protection.
: partic. important for timber exposed to heavy rainfall since
tal soaps previously used may leach through wet timber.

★ D22 D/05 ★IT 1048-141
exes of bromine with esters and ethers - for use as cleaning

ERSEY SPA 22.09.72-US-291412
P34 (20.11.80) A61l

★ D22 06636 D/05 ★J5 5151-034
-retaining polyurethane foam - comprising open-cell foam
dispersed water absorbing resin particles, used e.g. for
ng plants or for nappies
INKO KAGAKU KOGYO 12.05.79-JP-058283
5 C03 (A94) (25.11.80) C08j-09/02 C08l-75/04
9 as 058283 (2pp119)
am includes a water-absorbing resin particulate material (A)
sed on cell walls of the foamed open-cell urethane foam.
foam is pref. obtd. by dispersing (A) either in a mixt. of
nents before formation of a foamed product or in liq(s)
rising each such component. (A) is any known non-soluble
-absorbing resin or hydrogel, e.g. acrylic, PVA, starch, etc.
er-retaining characteristics are imparted by a simple method.
re plant growing beds, nappies, food conservation, etc.

[★ D22 06712 D/05 ★J5 5151-501
antiseptic compsn. - contg. hydroxy-or alkoxy-substd.
mide and opt. tri:alkyl-or tri:allyl-tin cpds.
OSHITOMI PHARM IND KK 16.05.79-JP-060827
3 E14 F09 P63 (C01 E12) (26.11.80) A01n-37/18 A01n-55/04 B27k-
34
79 as 060827 (4pp42)
ntiseptic (I) for wood contg. compound of formula (II) as
tial component is new. The addition of one or both of trialkyl tin
III) and triallyl tin cpd. (IV) enhances the antiseptic effect of
the formula, R is OH or lower alkoxy except for ethoxy.
has strong antiseptic effect for wood-decaying microorganism
mould. (I) is dissolved in a suitable organic solvent opt. with
ctant,, emulsifier, oil and other additives, and sprayed or
ed on the surface of wood. The addition of (I) into adhesive is
ffective in the case of prodn. of laminated board.
amples of (II) are O-hydroxy benzamide, O-methoxy
mide, O-butoxy benzamide, m-ethoxy benzamide and P-
oxy benzamide.



(II)

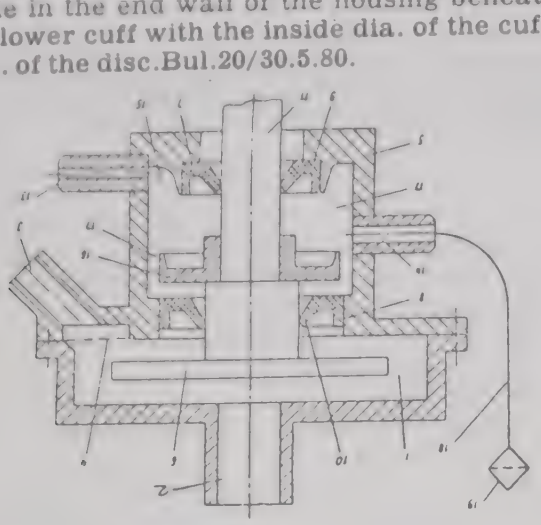
YOSH ★ D22 06713 D/05 ★J5 5151-502
Slime prevention agent - contg. 4,5-di:chloro-1,2-di:thiol-3-one and bis- tri:bromo methyl) sulphone
YOSHITOMI PHARM IND KK 11.05.79-JP-058487
C03 (D15) (26.11.80) A01n-35/02 A01n-41/10
11.05.79 as 058487 (5pp42)
Agent (I) contains 4,5-dicoro-1,2-ditol-3-one (II) and bis-(tribromo methyl)-sulpne (III) as essential components. (II) and (III) are usually used in a wt. ratio of (II) to (III) 1/10-1/80. (I) is added to the water, in tt the formation of the slime is prevented, in a conc. of about a few ppm.
Slime is formed in the waste water and industrial water of chemical plants, petroleum plants, paper mfg. plants, etc. causing several troubles. The addn. of (I in the waste water and the industrial water prevents the formation of the slime, due to its strong antiseptic effect.

YOKO/ ★ D22 06720 D/05 ★J5 5151-514
Iodinated peppermint oil pharmaceuticals - used in treatment of wounds and haemorrhoids, have analgesic, haemostatic, bactericidal and fungicidal action
YOKOYAMA R 14.05.79-JP-058019
B04 (26.11.80) A61k-33/18 A61k-35
14.05.79 as 058019 (3pp52)
Drugs contg. iodinated peppermint oil (IPO) are new. By peppermint oil a water immiscible volatile oil is meant; distilled (steam distillation) from the leaves, flowers or stems of Mentha piperita or M. arvensis. Peppermint oil from M. piperita comprises menthol (49-68%) and menthone (9-12%), s.g. 0.901-0.912 (15 deg.C), refractive index 1.460-1.463 (20 deg.C), optical rotation -33 to -21 deg., ester menthol (3-21%). The oil from M. arvensis comprises menthol (69-81%) and menthone (21-30%)' specific gravity 0.899-0.902 (15 deg.C), refractive index 1.460-1.461 (20 deg.C)' optical rotation -40 to -24 deg.' ester menthol (4-15%). Iodination comprises slow addn. to peppermint oil (46.7% free menthol, 5.9% ester menthol) of I2, with warming or cooling with stirring (an exothermic reaction). The temp. was finally raised to 100 deg.C to yield a red brown oil, which was washed with aq. NaHCO3 and water to yield iodinated peppermint oil as a viscous red brown oil. (alpha)D (+-) 0 deg. Refractive index 1.4836 (20 deg.C). S.g. 1.088 (15 deg.C).
The IPO may be formulated as liq. emulsions. In an example iodinated peppermint oil (10 g), vaseline (150 g) and lanolin (120 g) were mixed while heating to give an ointment.

AMSA D22 07621 V/05 = J8 1000-063
Ethylene oxide sterilizer - with gas exhaust extraction system
AMERICAN STERILISER CO 03.07.72-US-268647
*A96 P34 (06.01.81) *DE2333-574 A61l-02/20 B01d-53/34*
02.07.73 as 073768 (6pp)
The gas is pumped, via a valve into the top of an elongated extractor column containing a bed, 3-6 in. in dia. and 2-3 ft. tall, or a strongly acid cation activated ion exchanger resin containing free hydrogen esp. of sulphonated styroldivinylbenzol, with a particle size of 50 mesn.
The ethylene oxide in the exhaust gas combines with the resin to form hydoxy-ethylene gps. and the cleaned gas allowed to vent to atmos. The resin is kept wet by periodic spraying. (J49043486).

STTN ★ D22 07314 D/05 ★SU -737-405
Anti-haemorrhagic absorbable material - prepd. from cellulose by oxidn. with nitrous acid, stabilisation, modifying treatment and exposure to ionising radiation
STATNI VU TEXTILNI 17.10.77-SU-534952
A96 B04 P34 (04.06.80) A61l-15/ C08b-15/02*
17.10.77 as 534952 (5pp124)
Oxidised cellulose-based antihaemorrhagic medicinal material is obtd. if the starting cellulose material, e.g., cotton gauze or fabric is oxidised with aq. 60-70% soln. of HNO3 contg. NaNO2 preheated at 105-270 deg.C and added in proportion of 20-(100:1).
The oxidn. is carried out for 20-30 hrs. and the prod. is then treated with a 2-15% soln. of equimolar mixt. of K, Na or NH4 chloride and acetate in 5-10% aq. alcohol or acetone (I). This is followed by a stabilising treatment in a 5-10% soln. of urea or its N,N'-disubstd. alkyl or acyl deriv. in aq. 25-75% 1-4C aliphatic alcohol, centrifuging, washing with aq. 25-75% (I), neat (I), and drying. The prod. is then either irradiated with gamma rays of fast electrons with a dose of (2.5-7.5). 10 power four Joules/kg, or subjected, before irradiation, to impregnation with alcoholic or ketonic soln. of 1-5% polyvinyl pyrrolidone and 1.5% glycerol, or wetted with a 2-3% soln. of carboxymethylcellulose in 15-35% aq. glycerol contg. 0.002-0.1% of 3,7-bis(methylamino) phenazothionium chloride or a protein converting fibrinogen into human thrombin-type fibrium and/or a mixt. of dialysed abd lyophilysed proteolytic tripsin and chemotripsin ferments. Bul.20/30.5.80.

ASBI= ★ D22 07356 D/05 ★SU-737-448
Biomass disintegrating unit - has shaft carrying disc with flange pointed edge facing down between seals
AS USSR BIOLOG APPT 02.10.78-SU-669312
P41 (03.06.80) B02c-15 C12k-01
02.10.78 as 669312 (3pp89)
Sterile conditions for disintegrating biomass as well as prevention of toxic and pathogenic substances ingress into the outside medium are ensured by the disc. It is held between the sealing cuffs and its pointed flange faces down while the outside wall is vertical. A ring groove is made in the end wall of the housing beneath the working surface of the lower cuff with the inside dia. of the cuff smaller than the outside dia. of the disc.Bul.20/30.5.80.



PROC ★ D22 07479 D/05 ★US 4244-059
Panty garments for controlling crotch odour - contg. crotch panel with absorbed alkali metal carbonate or bi:carbonate
PROCTER & GAMBLE CO 23.04.79-US-032618 (30.05.75-US-582531)
E34 F07 P21 (E16) (13.01.81) A41b-09/04
23.04.79 as 032618 (5pp478)
Panty-type garment consists of a crotch panel on a garment which suspends it across the woman's crotch region. The panel consists of a soft fabric (with relatively uniform small passages providing an air permeability at least 100 cu.ft./sq.ft.min. at 1/2 inch H2O pressure drop) which has been treated with an odour absorbent cpd. (I). (I) is an alkali metal carbonate or bicarbonate, or an H2O-soluble polyamine derived from ethyleneimine, or mixts.

Amt. of (I) applied to the panel is 5-20% pref. ca 10% by wt. Pref. (I) are NaHCO3 or KHCO3, and these are pref.applied as an aq. soln. Crotch panel is pref. made of absorbent cellulosic fibres, esp. cotton or rayon cloths of basis wt. 50-200 g/sq.m.

The simple garment allows the crotch region to be ventilated, while any odours are removed.

ROLL/ ★ D22 07525 D/05 ★US 4244-367
Protective panty for incontinent persons - with absorbent stretchable lining of body panels and stretch crotch shield securely holding pad
ROLLENHAGEN J T 02.02.79-US-009283
A83 F07 P32 (13.01.81) A61f-13/16
02.02.79 as 009283 (5pp1358)
Panty has coextensively stretchable single-knit body panels with a full lining of stretchable absorbent double-knit material, and a crotch region with a liquid-impervious imperforate stretch material shield over which an absorbent pad can be mounted.

The pad is positioned by the crotch region and held securely by constriction of the stretchable lining and panels frictionally engaging the pad. The panels are pref. of nylon to prevent clinging to outer garments and the double-knit material is mainly of cotton and is laterally and longitudinally stretchable.

GILD ★ D22 07526 D/05 ★US 4244-368
Incontinence garment for disposable or reusable liners - with straps to cover snap fasteners when not in use
GILMAN BROS CO 05.03.79-US-017549
F07 P21 (13.01.81) A41b-13/02
05.03.79 as 017549 (4pp1358)
Garment comprises a pants body with pairs of spaced male snap fasteners at front and rear to receive the female fasteners of re-usable liners, and a pair of flexible straps each with a pair of spaced female snap fastenets to attach to and cover the male fasteners, and with a smooth surface facing the garment interior.

The disposable liners have adhesive for attachment to the garment and when mounted leave the male fasteners exposed. The straps are pref. of stretchable elastic tape and the male fasteners are mounted on a waist band of elastic tape.

KEND ★ D22 07527 D/05 ★US
Surgical sponge with visually detectable strip - which is non w and of contrasting colour to blood
KENDALL CO 26.02.79-US-015074 (17.01.77-US-760056)
P32 (13.01.81) A61f-13
26.02.79 as 015074 (6pp295)
A surgical sponge includes a sheet of an absorbent m consisting of a multi-ply absorbent gauze. The sponge is re visually detectable by the inclusion of an element on it surface which consists of an inner layer of a highly refl fluorescent, phosphorescent or irridescent material.

The inner layer is covered by an outer layer of trans material which has a non-wettable outer surface with a angle greater than 90 degrees. Thus in the presence of blo element remains highly visible. The colour of the inner m should contrast with the colour of blood.

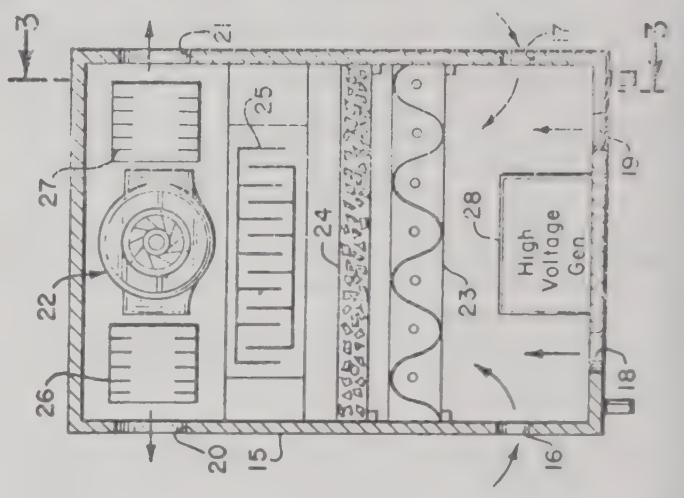
The element extends along a substantial portion of the le the sponge, and is permanently affixed throughout its length.

The sponge is not easily lost at the site of a surgical operatio sponge may also contain a radio-opaque strip for X-ray detecti

TONG/ ★ D22 07577 D/05 ★US 4
Portable air cleansing appts. - with electrostatic filter, ch filter, ozone generator and negative ion generator
TONGRET S R 05.03.79-US-017451
X25 P41 (X22) (13.01.81) B01d-35/06 B03c-03/32
05.03.79 as 017451 (5pp295)
A cleansing system treats recirculating air by passing it thr housing which includes a blower. The incoming air passes th an electrostatic air cleaner for removing negatively ch impurities. It next flows through a charcoal filter for chem absorbing other impurities.

Ozone is added to the air and before discharge the air partic negatively charged. The housing also includes a timer, a voltage transformer and rectifiers.

The system is used to deodorise and sanitise recirculating ai particularly used for treating a rented car. The recirculati penetrates and permeates fabrics and mats to kill odour-fo bacteria.



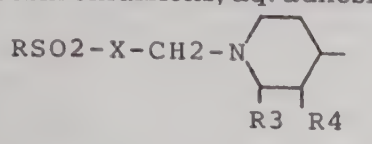
UNIC ★ D22 07657 D/05 ★US 4
Stable glutaraldehyde acetal compsns. - contg. soluble organ catalyst, liberating glutaraldehyde with water
UNION CARBIDE CORP 17.11.78-US-961714
E13 H01 (E17) (13.01.81) C07c-41/46 C07c-47/19 C07d-309/06
17.11.78 as 961714 (4pp478)
Storage stable compsn. contains: (a) 2,6-dialkoxy- tetrahydr (I), 5,5-dialkoxypentanal (II), 1,1,5,5- tetraalkoxypentane (mixts. (all alkoxy 1-3C); and (b) 0.25-2.5wt.% (based on (a) soluble acid (IV).

(I)-(III) (glutaraldehyde acetals) may be stored at elevated without decompsn., but liberate glutaraldehyde (biocide esp. for controlling sulphate reducing bacteria contaminating oil on addn. of H2O. In addn., the handling of the i glutaraldehyde is avoided.

MERI ★ D22 07697 D/05 ★US 4
N-Sulphonyl-alkyl-piperidine derivs. - useful as antiinflamm analgesic, antipyretic, antifungal and antimicrobial agents
MERCK & CO INC 27.09.79-US-079281
A60 B03 F09 (13.01.81) A61k-31/44 C07d-211/46
27.09.79 as 079281 (10pp1248)
N-Sulphonylalkylpiperidine derivs. YR5 (I) and Y(CH2)nY (their acid-addn. and quat. salts are new. In (I) and (II), Y is formula (III), (X is CH(CH2-NR1R2) or C(:CH2); R is 3-18C alk alkenyl, or Ph or naphthyl both opt. substd. by 1 or 2 halogen, 4C alkyl, 1-4C alkoxy or (1-4C)alkoxy-(1-4C)alkyl, or imi thienyl, thiazolyl, pyridyl, furyl or tetrahydrofuran-2-yl; R1 are H' 1-18C alkyl, 2-8C alkenyl, 1-8C hydroxyalkyl o

yl; or NR1R2 is pyrrolidino or piperidino substd. at the 2-' 3-ns. by R3, R4 and R5, respectively; R3-R5 are H, 1-3C alkyl, nyl, halogen' OH, 1-3C hydroxyalkyl, Ph, COOH, CONH2 o- or di-substd. by 1-4C alkyl, (1-4C) alkoxycarbonyl, 1-nyl or 1-piperidinyl; and n is 0-3).

useful as preservatives in latex paints, cooling water paper mill white water, brines used in oil recovery, cutting sions, resin emulsions, aq. adhesives etc.



(III)

D22 44137 A/25 = US 4244-992

ing human, animal or plant specimens - by impregnation olymerisable plastic material without affecting outline

HAGENS G 07.05.77-DE-720607 (09.03.77-DE-710147)

*+P13 (D16) (13.01.81) *BE-863-949 A01n-01*

as 055076 (+14.11.77-US-851101) (6pp977)

ed anhydrous animal or vegetable tissue having dispersed oluble synthetic resin is prepd. by (1) replacing the water with organic solvent volatile in a vacuum at ambient temp., acting with fluid precursor compsn. in a vacuum at ambient until the solvent is volatilised and replaced by compsn. e of being polymerised into solid, water-insol. synthetic resin, holding under polymerisation conditions.

preserved tissues can be examined by all important optical s.

CIBA D22 86210 B/48 = US 4245-125

Hydrogen peroxide, hydroxylamine and hydrazine adducts - with glycol and glycerol ether cpds., are redox partners in e.g. polymerisations

CIBA GEIGY CORP 04.08.78-CH-008360 (18.05.78-CH-005391)

*A60 C03 E36 P34 (13.01.81) *DE2919-554 C07c-43/10 C08f-02 C08f-120/18*

10.05.79 as 037599 (5pp918)

Cpds. of formula A.mb (I) are new where A is R1-X-(CH2-Q-O)nH, m is 0.8-4.0 (pref. 0.8-2.0), 8 is H2O2, R1 is 3-18C alkyl, X is -O- n is 1 or 2 and Q is -CH(OH)CH2-. Specifically claimed (I) are (2-ethylhexyl)-O-CH2-CH(OH)-CH2(OH)- 2H202 and i-ci3H27-O- CH2-CH(OH)-CH2(OH).2H2O2.

(I) have high solubility even in highly nonpolar organic solvents, intense activity as redox partners and high stability on comparison with other chemical addn. cpds.

NPDC ★ D22 07773 D/05 ★ZA 7903-825

Treatment of wound, esp. burned tissue - by application of settable paste comprising particulate, hydrophilic water-swellable polymer and inert, water-miscible organic liq.

NATIONAL PATENT DEV CORP 10.07.79-US-056183

A96 P32 (02.09.80) A61f C08l

See Also

D13 DE 2925963 D13 GB 1583408 D15 BE 885157
D23 FR 2452920

D23: OILS; FATS; WAXES

★ D23 05713 D/05 ★BE -884-206

4-Formyl-tri:cyclo-(5,2,1,0-2,6)-decene-3 prodn. - by rmylation of dicyclopentadiene using a rhodium complex t

HRCHEMIE AG 13.07.79-DE-928313

(07.01.81) C07c

as 884206 (7pp513)

4-Formyl-tricyclo-(5,2,1,0 2,6)-decene-8 (I) are made by g dicyclopentadiene (II) with carbon monoxide and hydrogen 50 deg. C and a press. of 50-400 bars in the presence of 1-30 .r.t. (I) of a rhodium as catalyst in the form of a complex organic phosphines and CO.

rhodium is added to the reaction mixt. e.g. as the sesquioxide, ride, nitrate, sulphate, etc. The organic phosphine is e.g. a phosphine or trialkyl phosphine, used at 50-1000 ppm w.r.t.

rhodium catalyst gives high yields of the desired (I) at low st concn. The (I) are useful perfume constituents and ediates in the prodn. of synthetic rubber.

★ D23 05809 D/05 ★DE 2925-176

amascone and beta-damascenone prepn. - by e.g. base-sed 2,2,6-tri:methyl cyclohexanone reaction with 3-tert.-oxy-2-butyne and acid rearrangement

SF AG 22.06.79-DE-925176

5 (D13 D21) (22.01.81) C07c-45 C07c-49/21

9 as 925176 (12pp200)

rimethyl-1-crotonyl-cyclohex-1-ene, (Ia), also known as beta-scone, and 2,6,6-trimethyl-1-crotonyl-cyclohexa-1,3-diene, (Ib), nown as beta-damascenone, are prepd. by (a) reacting 2,2,6-hyl-cyclohexanone, (IIa) or 2,6,6-trimethyl-cyclohex-2 -en-one, with 3-tert. butyloxy-1-butyne, (III), in the presence of a strong and then (b) rearranging the alcohol (IV) obtd. to (I) by ment, at 45-100 deg.C, with an acid catalyst having acid th at least equal to or higher than that of HCOOH.

and (Ib) are perfumes and aromatisers for food and cosmetics. (III) in place of butyn-3-ol suppressed the formation of spiro and increased the yields of (Ia) or (Ib). Alkali metal hydroxides e used as strong bases in step (a), together with hydrocarbon or solvents.

★ D23 05945 D/05 ★DE 3023-589

al or plant oil refining - by deacidifying, soap separation, direct ication, discolouration with adsorbent and deodorising by -distn.

IOWA SANGYO KK 25.06.79-JP-079127

.01.81) C11b-03

80 as 023589 (19pp200)

al or plant oils and fats are refined by (((a) deacidifying by g with an aq. soln. of an alkaline substance, (b) sepg. the insoluble constituents of the oil or fat from the mixt., (c) directly mixing the deacidified sepd. oil or fat from (b) with an aq. soln. of an acid, (d) treating the mixt. obtd. with an adsorbent, to absorb dyes, impurities and salts formed in (c), (e) sepg. the adsorbent and (f) deodourising the oil or fat from (e) by steam-distn.

The mixt. is pref. dried between steps (c) and (d), to separate excess water. Organic or inorganic acids can be used in step (c), e.g. 38-380 ppm conc. 75-85% phosphoric acid or 19.7-197 ppm 100% AcOH to decompose 100-1000 ppm soap in oil.

By omitting a washing step after soap sepn. in step (b), the process is carried out economically without waste water prodn.

CHEM D23 90212 C/51 = EP --22-460

Alkoxymethyl-cyclododecane derivs. - useful as perfume components

CHEM WERKE HULS AG 13.07.79-DE-928347

*E15 (21.01.81) *DS2928-347 A61k-07/46 C07c-43/11 + C11b-09*

16.05.80 as 102703 (10pp200) (G) DS1211174 DS2152016 4.Jnl.Ref E(CH FR GB IT LI)

New aliphatic ethers of hydroxymethyl-cyclododecane have formula (I)

Q-CH2-O-R (I)

(where R is linear or branched saturated or unsaturated 1-4C alkyl; Q is cyclododecyl)..

Cpds. (I) are perfumes having an intensive, lasting, woody-amber-like note. (I) can be mixed with other cpds., esp. other perfumes, to form new perfume compsns. which can be used directly as perfumes, for scenting cosmetics or for improving the smell of technical prods., e.g. cleansers, detergents, disinfectants and textile auxiliaries. (I) combine well to give new fragrance notes and cling well.

CHEM ★ D23 06114 D/05 ★EP --22-462

2-Alkoxyethyl cycloalkyl ether cpds. - useful as perfume components

CHEM WERKE HULS AG 13.07.79-DE-928348

E15 (21.01.81) A61k-07/46 C07c-43/18 C11b-09

20.05.80 as 102772 (10pp367) (G) DE2427500 DE2436520 DS2626965 E(CH FR GB IT LI)

Ethers of formula (I) are new:

R'-O-CH2CH2-OR (I)

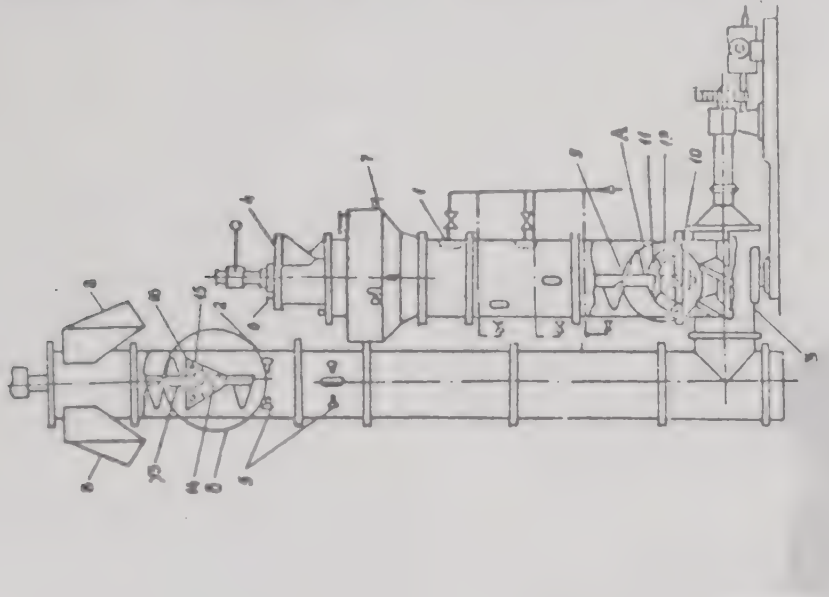
(where R is opt. unsatd. 1-3C alkyl and R' is 6-12C cycloalkyl)..

Cpds. (I) are useful as perfume components with a woody aroma and fixative properties.

VOSG/ ★ D23 06285 D/05 ★FR 2452-920
Solidified perfume prods. for body application or for toilets - based on perfume, soap and nonionic surfactant
VOSGANIANTZ J J 05.04.79-FR-008663
Q42 (D22) (05.12.80) A61k-07/46 E03d-09/02
05.04.79 as 008663 (9pp597)
Perfume prods. contain, on a dry basis, 5-70% of aromatic material or perfume, 5-25% of soap and the balance nonionic surfactant; the water content is at least 60% of the soap wt. and pref. 60-150%. It is prepd. by mixing the aromatic material or perfume, surfactant and the soap fatty acid to 60-70 deg. C., adding the required amt. of aq. alkali and then cooling.
The prod. is used esp. for body application and also in W.C. bowls and urinals. It is non-hygroscopic and avoids the use of undesirable solvents.

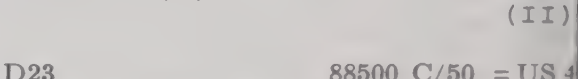
SIMC ★ D23 06400 D/05 ★GB 2052-551
Extn. of oil from oil rich seeds - by pressing, expansion, then solvent extn.
SIMON-ROSEDOWNS LTD 23.06.79-GB-021924
(28.01.81) C11b-01/10
23.06.79 as 021924 (3pp478)
Oil (I) extn. from seeds contg. large quantities is as follows: (a) the seeds are first pressed to reduce the (I) content to less than 30% by wt.; (b) the pressed seeds are expanded; and (c) the expanded material is extrd. with a solvent.
Opt. seed is cooked prior to step (a). Step (b) may be effected by working the seeds with 1 or more screws rotated in a barrel fitted with a die at one end. Seed temp. is raised to above 100 deg.C while H2O is prevented from boiling by high pressure. After extrusion, the sudden drop in pressure causes contained H2O to boil and expand the seed. A typical seed for extn. process is rape seed.
Compared with traditional press cake, the pressed, expanded material has higher apparent bulk density, can be extrd. to a lower (I) content, and (after solvent extrn.) can be desolventized more readily.

KHPO ★ D23 07343 D/05 ★SU-737-434
Vertical counterflow screw extractor for oil fat materials - has two columns with internal screws and vibrating perforated elements, linked by horizontal transfer screw
KHARKOV POLY 08.10.75-SU-179554
B04 (05.06.80) C11b-01/10
08.10.75 as 179554 (4pp29)
Vertical screw counterflow extractor, for use in the oils/fats, vitamins, and medicinal industries, has two columns - one for loading and other for extraction, connected together at their bases by a horizontal screw. Productivity is increased, together with an increased micelles concentration and a reduced solvent content in the oil-cake, by fitting vibrating spring-loaded perforated elements on screw shafts at the bottom end of the loading, and the top end of the extracting, columns. These are made respectively as a hollow hemisphere, mounted so that its convex surface points to movement of the material being extracted, and a hol mounted with its base towards the moving mater hemisphere has rectangular slits cut radially, and the circular holes arranged in concentric circles. The width of is 1/20-1/15 of the height of the hemisphere; the height of th 1/5-1/4 of the diameter of the screw; from the apex of the holes in each row gets less but their diameter increases; and area of the holes in the cone is 3/4-1 times the area of th section of the column.

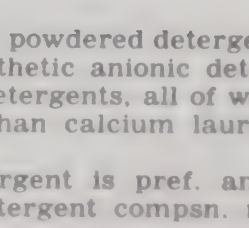


MOFA= ★ D23 07345 D/05 ★SU
Hydrogenation of vegetable oils and fats - using ele hydrogen, dispersed metal catalyst and fibrous asbestos w of activated carbon or bleaching clay
MOSC FATS RES INST(GOBU=) 06.12.76-SU-427110
(30.05.80) C11c-03/12
06.12.76 as 427110 Add to 487936 (2pp70)
Vegetable oils or fats hydrogenation process claimed in Patent No. 487936, is conducted in presence of a detoxicant fibrous asbestos.
The process is accelerated and prod. yields are impr introducing into reaction chamber activated carbon or bl clay in an amt. of 0.2-0.5 wt.% (w.r.t. the fat).
Typically, 200 ml. of melting pig fat (m.pt. 38.5 deg.C; number 60.02 acid number 0.2 mg KOH) is hydrogenated in p of Ni-Cu catalyst at 220-225 deg.C for 1hr. The iodine numbe product is 0.2-1.0; the acid number 0.58-1.05 mg KOH. Bul. 20/

SOSH D23 82515 A/46 =US
Omega-hydroxy fatty acid prodn. - by hydrogenolysis of butyrolactone deriv., useful in perfumery etc. and as interm NL 30.10.78)
SODA KORYO KK 26.04.77-JP-047346
*E17 (E13 E14) (13.01.81) *DE2818-126 C07d-307/32*
18.04.78 as 897641 (7pp936)
Omega-hydroxy and omega-acyloxy-alkyl-gammutyrolacto formula (I) and omega-hydroxy-alkyl-gamma- butyrolact formula (II) are new
In (I) R is H or acyl derived from acyclic 1-10C monocarl acid, benzoic acid or phenylacetic acid and n is integer 7-11 S (I) are those where n is 7 and R is H; n is 10 and R is H; n is 11 a H; R is acetyl and n is 10; R is butyryl and n is 10; R is pivaloy is 10; R is acetyl and n is 11; R is pelargonyl and n is H; R is and n is 10; and R is benzoyl and n is 10.
(I) are useful as intermediates in the prodn. of macrocyclic perfumes.



FARB D23 88500 C/50 =US
Iso:camphoryl guaicol ethyl ether derivs. - useful as intern for the sandalwood component iso:camphoryl cyclohexanol
BAYER AG (HAAR) 25.05.79-DE-921139
*E14 (13.01.81) *DE2921-139 C07c-43/20*
30.08.79 as 071432 (3pp918)
(Isocamph-5-yl)-guaiacyl ethers of formula (I) are new. R isocamph-5-yl radical in the 6- or 4-position relative to the eth 4-(Isocamph-5-yl) guaiacyl ethyl ether is specifically claimed.
(I) is prepd. by the alkylation of 6- or 4-(isocamph-5-yl)- gu alkali metal salt with ethyl halide or diethyl sulphate.
(I) are intermediates in the prepn. of 3-(isocamp cyclohexanol, an important constituent of sandal cpd.



D24: SOAP; SOAP DETERGENTS

UNIL D24 55353 T/35 =DS 2204-865
Detergent powder composns - contg soluble laurate salts as builders and alkyl sulphates or sulphonates
UNILEVER NV 05.02.71-GB-004080
*E17 (22.01.81) *DE2204-865 C11d-01/37*
02.02.72 as 204865 (8pp068)
A water-soluble salt of lauric acid is used in an amt. of 15-80 (40-60) wt.% as builder in a powdered detergent compsn. contg. 10-5 of at least one synthetic anionic detergent or a mixt. con chiefly of anionic detergents, all of which as calcium salts greater solubility than calcium laurate and which is free phosphate.
The anionic detergent is pref. an alkali metal alkylb sulphonate. The detergent compsn. may also contain 6-1

silicate as well as usual additives. The compsn. is efficient ergent and is biodegradable.(DS)

D25 : OTHER DETERGENTS

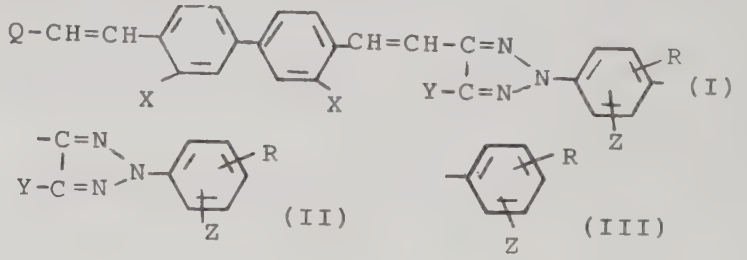
★ D25 05715 D/05 ★BE -884-208
late bleaching compsns., esp. washing powders - contg. etyl ethylene-di:amine activator of specified granulometry
LEVER NV 06.07.79-GB-023765
(07.01.81) C11d
as 884208 (23pp597)
n. comprises a particulate peroxide bleaching cpd. and etyl ethylenediamine (I) as activator. (I) has the following ometry by sieving; below 50 micron (0-20%), below 75 micron , above 100 and below 150 micron (10-100%) and above 150 (0-20%). (I) is contained in the granules with a granulating he content of (I) being 10-99%.
compsn. is used in washing powders. The form of activator (I) s more rapid dissolution in washing machines and therefore ffective bleaching. Decomposition in storage is also reduced.

★ D25 05822 D/05 ★DE 2925-628
uble surfactant foam suppressant cpds. - comprising reaction f ethoxylated higher alcohol with higher alkylene oxide
EM WERKE HULS AG 26.06.79-DE-925628
H07 (E17) (22.01.81) C07c-41/02 C07c-43/11
9 as 925628 (12pp367)
suitable for reducing the interfacial tension of oil phases w.r.t. are of formula (I)
(CH2CH2O)x-(CHR'-CHR-O)yH)z
re R is an alkyl, aralkyl or alkaryl gp. with an 8-22C alkyl or a 2-22C hydroxyalkyl gp. and z is 1, or R is an 8-22C lkylidene gp. and z is 2; R' and R are H or 1-20C alkyl, ed that R' and R are not both H and that they contain a total of toms; x is 10-40; y is 1.2-5).
an be used as foam suppressants for detergent compsns. and oils. They are practically insoluble in water, have good ity in nonpolar media (e.g. paraffin oil), and are capable of ng interfacial tension to less than 1 mN/m at concns. as low as

★ D25 05832 D/05 ★DE 2925-859
rinsing compsn. improving softness and absorption capacity . quat. ammonium salt and water soluble quat. ammonium ntg. poly:galactomannan ether
NKEL KG AUF AKTIEN 27.06.79-DE-925859
E19 (22.01.81) C11d-01/62
9 as 925859 (20pp200)
undry after-treatment compsn. contains, by wt., (a) 0.5-6% softeners comprising (i) 40-100 wt.% quat. aonium salts ting of ammonia- and/or imidazoline derivs. contg. at least 2 nained aliphatic gps. in mol., (ii) 0-60 wt.% fatty ydroxyalkyl polyamine condensn. prod., (b) 1-6% water- e, quat. ammonium gp.-contg. polygalactomannan ether, (I), balance:standard components of liq. laundry after-treatment ns.
.. compsns. contain (a) 1.5-6 wt.% textile-softening quat. nium salt having at least 2 long-chained, esp. satd. 14-26 (11-20) natic gps., derived from ammonia, and (b) 1-6 wt.% (I). (I) has e of substitution 0.05-0.2 (0.07-0.15) ether gps. per rogalactomannan unit and is prepd. esp. by reacting ulactomannan, or guar, with 2,3-epoxypropyl trialkyl nium salts, partic. 2,3-epoxypropyl trimethyl -ammonium de.
of textile rinse compsns. contg. (a) and (b) improves textile ss and water-absorption capacity of treated textiles, e.g. ing.

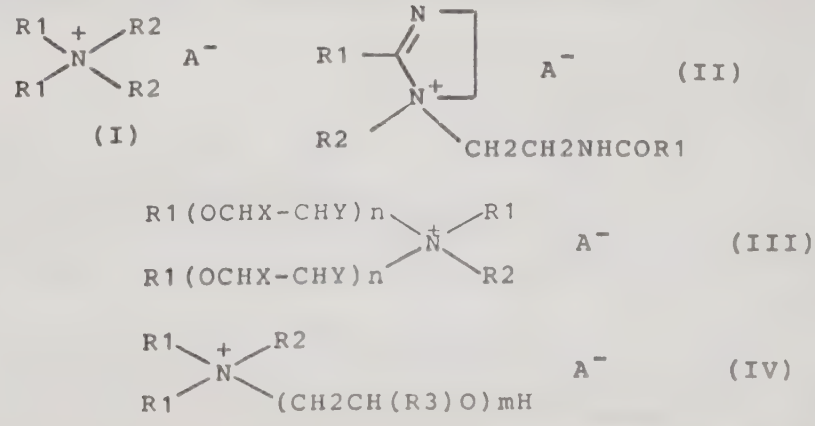
D25 59065 T/37 =DS 2209-200
detergent compsn - contg optical blueing agent with solvents to ispersion
LGATE PALMOLIVE CO 15.03.71-US-124601
7 *(22.01.81) *BE-780-048 C11d-03/42*
2 as 209200 (4pp068)
r liq. cleansing agent comprises (a) 1-40 wt.% water-soluble ic anionic surfactant; (b) 1-50 wt.% water-soluble salt of an acid; (c) 1-40 wt.% of a hydrotropic cpd. which is Na or K - or toluene- sulphonate or Na or NH4 cumene sulphonate; (d) t.% of an ethoxylated 8-15C fatty alcohol; (e) 0.01-0.5 wt.% of an c stilbene cpd. as optical brightener: and (f) 1-20 wt.% of a 1-4C alkyl ether of ethylene glycol or a di- or tri-alkylether of ne glycol and/or dimethyl sulphoxide as well as water.
brightener (e) is mixed with component (d) and dissolved in (d) at 23.9-82.2 deg.C and then the other components and water are added in the required amts. The brightener is present in large amts. and yet is soluble.(DS)

CIBA D25 40305 U/29 =DS 2262-633
4-biphenylyl-vinyl -1,2,3-triazoles - useful as optical brightening agents
CIBA GEIGY AG 30.12.71-CH-019171
*E23 F06 (22.01.81) *DE2262-633 C07d-249/06 D06l-03/12*
21.12.72 as 262633 (15pp068)
New cpds. are 4,4'-divinyl-diphenyl cpds. contg. sulpho and v-triazolyl gps. of formula (I). In (I) R and X are H, sulphonic acid, halogen, alkyl, 3-4C alkenyloxy, alkoxy or benzyloxy; Y is H, chlorine, alkyl or phenyl which may have R as substituent(s); X is gp. (II) or (III) and X is H, halogen, alkyl, alkoxy or sulphonic acid gp.; the number of sulphonic acid gps. is 1-4; the alkyl and alkoxy gps. contain 1-4C atoms.
The cpds. are useful as optical brighteners and may be prepd. by condensing a suitable diphenyl cpd. e.g. 4,4'-bis-(dimethoxyphosphonomethyl)-diphenyl with a suitable triazolyl cpd. e.g. the sodium salt of 4-(4-formyl-1,2,3-triazole-2-yl) benzene sulphonic acid. (DS)



FARB D25 02178 D/03 =EP --22-199
Bleaching liq. with low sodium chloride content - made by melting crystals of sodium hypochlorite obtd. sub-zero cooling of soln with high sodium chloride content
BAYER AG 29.06.79-DE-926413
*E34 (14.01.81) *DE2926-413 C01b-11/06*
20.06.80 as 103448 (11pp1144)* (G) DS-389160 US2918351 DS-234838 FR1072983 DS1467145 E(BE DE FR GB IT)
Prepn. of bleaching liqs. with low sodium chloride content comprises cooling a liq. contg. sodium hypochlorite, sodium salts of weak acids, and a high %age of NaCl, to below -10 deg. C. so NaClO crystallises out of the soln. The crystals are sepd., and are then melted to yield a liq. with a high content of NaClO but a low content of NaCl..
The bleaching liq. uses crystals which are melted to produce a liq. contg. e.g. 260 g/l NaClO and only 90 g/l NaCl. Water can then be added to make the usual household bleach contg. 52 g/l NaClO and 18 g/l NaCl.

FARH ★ D25 06171 D/05 ★EP --22-555
Fabric softeners contg. quat. ammonium salts. - together with polyalkoxylated fatty amide
HOECHST AG 12.07.79-DE-928141
A97 E13 (E16) (21.01.81) C11d-01/62 C11d-03/32
09.07.80 as 103918 (11pp367) (G) GB1339069 EP----595 DE2733970 DE2436145 US4155882 E(AT BE CH DE FR GB IT LI NL SE)
Fabric softener compsns. for addn. during rinsing of washed textiles comprise aq. solns. or dispersions contg. (a) 3-15 (pref. 3-8) wt.% of one or more quat. ammonium salts of formulae (I)-(IV) and (b) 3-15 (pref. 3-8) wt.% of a polyalkoxylated fatty amide of formula (V):



R4CONHCHX-CHY-O(CHX-CHYO)nH (where R1 is 6-18C alkyl or alkenyl; Z is ethylene or propylene; R2 is 1-4C alkyl; n = 1-20; m = 1-15; A is an anion; R4 is 8-30C alkyl)..

The compsns. impart a soft feel to a wide range of natural and synthetic fabrics and are esp. useful for rinsing terry-cloth garments and underwear. The treated fabrics have better rewettability than fabrics treated with quat. ammonium salts alone.

FARH ★ D25 06174 D/05 ★EP --22-562

Quat. ammonium salts contg. acyloxyalkyl gp. - useful as fabric softeners and prepd. from amino alcohol and a fatty acid

HOECHST AG 14.07.79-DE-928603

A97 E14 (E16) (21.01.81) C07c-93/18 C11d-03/30

10.07.80 as 103954 (13pp367) (G) NO-CITNS. E(AT BE CH DE FR GB IT LI NL SE)

Quat. ammonium salts of formula R1R2N(+)(XCOR)(YH)A(-) (I) are new. (R1 is 8-30C alkyl, 2-hydroxyalkyl or alkenyl; R2 is 1-4C alkyl or benzyl; A is an anion; X is (CHX'-(CHY')m-O)n, CH2-CHOH-CHO- (sic) or CH2-CH(CH2OH)-O; Y is X or 1-4C alkylene; R is 8-30C alkyl or alkenyl; X' and Y' are H or Me but not both Me; m = 1 or 2; and n = 1-20)..

(I) are fabric softeners for addn. during rinsing of washed textiles.

PROC D25 25226 A/14 = GB 1583-510

Granular alkaline detergent compsn. - contg. zwitterionic surfactant stabilised against degradation by premixing with nonionic surfactant

PROCTER & GAMBLE CO 31.01.77-US-764126 (01.10.76-US-728578)

*A97 E19 (E37) (28.01.81) *BE-859-260 C11d-01/94 C11d-03/04 C11d-11*

30.09.77 as 040733 (12pp393)

Prepn. of a zwitterionic surfactant-contg. spray-dried granular alkaline detergent compsn. in which degradation of the zwitterionic surfactant is minimised, is described.

Method involves (a) forming a mixt., free of alkaline components, consisting of (i) alkoxylated nonionic surfactant and (ii) zwitterionic surfactant, in a wt. ratio of (i) to (ii) 5:1 to 1:5,the mixt. having a pH of less than 9 at 1 wt.% concn. in water; (b) thoroughly agitating the mixt.; (c) adding the mixt. to an aq. slurry of the alkaline component(s); and (d) spray-drying the aq. slurry formed to produce detergent granules.

KAWA- ★ D25 06675 D/05 ★J5 5151-098

Detergent compsn. for cleaning vegetables, fruit etc. - contains alkali(be earth) metal salt of alanine and anionic surfactant

KAWAKITA GIKEN KK 12.05.79-JP-144142

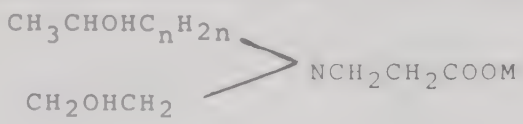
E12 (25.11.80) C11d-01/94

12.05.79 as 144142 (7pp117)

Detergent compsn. used e.g. for cleaning tableware contains an alkali(ne earth) metal salt of a N-beta-hydroxyalkyl-N-hydroxyethyl-beta-aminopropionic acid(alanine) of the formula (I) (where n is 1 to 2 and M is alkali(ne earth) metal) and an anionic surfactant (II).

(II) is e.g. alkylether sulphate, higher fatty acid alkali(ne earth) metal salt, alkylbenzene sulphonic acid alkali(ne earth) metal salt, paraffinic sulphonate, olefinic sulphonate, alkylether sulphonate or higher alcohol sulphonate.

Compsn. is free of condensed phosphate, e.g. sodium tripolyphosphate, as builder, has good detergency and stability and is also free of irritating action on the skin of human body; it causes no environmental pollution and is useful when using hard water.



JOHN- ★ D25 06676 D/05 ★J5 5151-099

Liq. detergent compsn. for treating sports shoes - obtd. by adding water soluble cellulose deriv. to aq. detergent soln. surfactant, builder, dye etc.

JOHNSON KK 14.05.79-JP-058117

A97 P22 (25.11.80) A43b-03 C11d-03/37

14.05.79 as 058117 (3pp117)

Compsn. is obtd. by adding 0.2-2.0 wt.% water-soluble cellulose deriv. (e.g. CMC, methylcellulose, hydroxyethylcellulose, etc.), of viscosity at least 50 cps (for 1 wt.% aq. soln. at 25 deg.C) and an etherification degree of at least 0.8 to an aq. detergent soln. contg. up to 25wt.% a surfactant, e.g. nonionic surfactant of a 8-18C alcohol series, etc. together with builder(s), fluorescent dyes, blue dyes, and fungicide.

The compsn. has excellent deterging power for sport shoes as well as in polluted water dispersiveness, restaining inhibiting effect, skin-chapping inhibiting effect. Liq. detergent compsn. can be used as it is as its viscosity is regulated in advance.

In an example, 2.0% polyoxyethylene (9.0) alkyl (11-14C) 3.0% polyoxyethylene (12.0) alkyl (11-14C) ether, 1.5% s tripolyphosphate, 1.0% isopropyl alcohol, 0.1% a perfume, fungicide, 0.05% a fluorescent whitening agent, 0.001% a blu 0.8% CMC, and water were mixed to obtain a liq. detergent co of a viscosity of 200 cps (25 deg.C).

NAAR- ★ D25 07019 D/05 ★NL 79

P-tert. butyl-alpha, alpha-di:methyl:di:hydro:cin amaldehyde stable component of perfume and perfumed articles, with lily-o valley fragrance

NAARDEN & SHELL ARO 03.07.79-NL-005175

E14 (06.01.81) A61k-07/46 C07c-47/48 C11b-09

03.07.79 as 005175 (11pp510)

p-tert.Butyl-alpha,alpha-dimethyl dihydrocinnamaldehyde (new. (I) has a strong, green-flowery scent of the lily-of-the-v type. The strength of the scent at a concn. of 10 ppm. is 3 x that tert.butyl-alpha-methyl- dihydro cinnamaldehyde (II). (I) is stable in compsns. such as soaps or detergents than (II). synthetic detergent contg. 20% of perborate, the stability at 40 d after 40 days, was 71% for (I), and 19% for (II).

(I) is prepd. by known methods, e.g. (i) methylation of (II) i alpha-position, after conversion of (II) to an enamine, (ii) by condensn. of p-tert.butyl-benzaldehyde and isobutyraldeh followed by reductive dehydration, or (iii) alkylation isobutyraldehyde in the alpha-position by means of a p-tert.b benzyl halide.

ERZO= ★ D25 07092 D/05 ★SU -73

Compsn. for cleaning and disinfecting in food, e.g. dairy indu contg. alkyl-tri:methyl-ammonium chloride, partly ethoxy mono:ethanolamide(s) of fatty acids, urea, sodium silicate and v

EREV ZOOL VETER INS 20.03.75-SU-115490

E16 (28.05.80) C11d-01/83

20.03.75 as 115490 (4pp70)

Compsn. for cleaning and disinfecting food industry installa contains (in wt.%) alkyltrimethylammonium chloride polyethoxylated monoethanolamides of 10-16C synthetic fatty 1-20, mono-ethanolsamides of 10-16C synthetic fatty acids 1-15, 0.1-15, sodium silicate 0.1-10; the balance is water.

The compsn. is used in mfg. of cheese, butter, tinned food etc. compsn. has high cleansing and disinfecting power. It has storage stability.

BADI ★ D25 07636 D/05 ★US 424

Phosphate free low temp. washing of dishes - with detergent co nonionic surfactant, sodium citrate, sodium carbonate, chlorin cyanurate, and sodium metasilicate

BASF WYANDOTTE CORP 27.07.79-US-061119

A97 (13.01.81) C11d-07/28

27.07.79 as 061119 (8pp478)

Dishware is washed at 38-71deg. C in H2O contg. 0.2-0.5% by wt. detergent system. The detergent consists of (by wt.): 1-9% nonionic surfactant

((HOC3H6-(C3H6O)m-(C2H4O)n-(C3H6O)2N)2R (I)

, 22-38% Na citrate, 15-25% Na2CO3, 1-6% chlorinated cyanu (II), and 20-40% Na metasilicate.

In (I) nm are so that mol. wt. due to oxypropylene hydrophol 800-2000/chain and the portion of the mol. wt. due to oxyethy units is 5-16%; R is 2-6C divalent organic radical.

Compsn. is phosphate-free, and is effective in both cool relatively hot water.

USBO D25 02450 D/03 = US 424

Dry carpet cleaning and deodorising compsn. - contg. a hydr sodium borate, water-insol. hydrated metal alumino-silicate, perfume

US BORAX & CHEM CORP 05.06.79-US-045729

*E37 (E14) (13.01.81) *EP--21-631 C11d-03/04*

05.06.79 as 045729 (3pp924)

Dry carpet cleaning and deodorising compsn. comprises 85- wt.% of hydrated Na borate, 0.2-15 wt.% of a water soluble hydr metal aluminosilicate and 0.01-5 wt.% of perfume. Pref. the com also contains 0.05-5 wt.% of cationic quat. ammonium salt.

Pref. borate is Na tetraborate pentahydrate or decahydrate. P aluminosilicate is hydrated Na aluminosilicate. The com overcomes disadvantages of prior art prods. and gives impro cleaning and freshening action. The compsn. may be easily remo using a household vacuum cleaner.

D25 67110 A/38 = US 4244-840

liquid detergent compsn. for cleaning hard surfaces - detergent and salts without special opacifier

ATE PALMOLIVE CO 10.05.77-GB-019559

*(13.01.81) *BE-866-894 C11d-01/22 C11d-03/06*

s 902142 (4pp982)

ified, impalpable, homogeneous, liq., hard surface cleaner, of (by wt.) 2-6% water-soluble, synthetic, anionic, ated detergent salt (I) contg. an 8-22C alkyl gp. in the ; 1-4% water-soluble alkyleneoxylated nonionic detergent wt.% water-soluble detergent builder salt (III); 0-2% 8-18C d; 0-8% urea; and water.

selected from ammonium, mono-, di- and triethanol um and alkali metal salts. (II) is selected from condensates alkanols with 2-15 moles of ethylene oxide, condensates of 6- lphenol with 5-30 moles of ethylene oxide and condensates of lkanols with a heteric mixt. of ethylene oxide and propylene a wt. ratio of 2.5:1 to 4:1 with the total alkylene oxide content -85 wt.%. The wt. ratio of (I) to (II) is 0.5:1 to 6:1. The wt. ratio o (I) + (II) is 1:5 to 5:1.

er has low temp. stability and good viscosity and detergency.

★ D25 07660 D/05 ★US 4244-884

ous prepn. of peroxy:carboxylic acids - by withdrawing solid nd recycling liq. side prods. after mixing with hydrogen e or starting carboxylic acid and sulphuric acid

CTER & GAMBLE CO 12.07.79-US-057131

(13.01.81) C07c-179/10

as 057131 (11pp960)

ous prepn. of a 6-20(8-16)C peroxyacid contg. at least one H comprises (a) maintaining a slurry at 15-45 deg. C sing (1) 60-80wt.% conc. sulphuric acid, 2.5-12.5 wt.% en peroxide and 7.5-37.5wt.% water and (2) solid phase of the acid and the corresp. starting carboxylic acid; (b) awing part of the slurry and filtering; (c) mixing the filtrate . hydrogen peroxide to maintain its concn. in (a), to form re- tream (I) which is cooled before its introdn. into (a); (d) awing more slurry which is mixed with the starting ylic acid and conc. sulphuric acid to maintain their concn. in orm re-entry stream (II) which is cooled before it's introdn. ; and (e) washing the filter cake. Reaction is conduction to in the compsn. and temp. of the slurry.

xyacids are used as fabric bleaching agent. The temp. of the n mixt. is controlled by introducing the starting acid and ic acid, and the aq. peroxide at separate sites so eliminating ots'. The water of reaction and the water of diln. of the le are efficiently removed.

HENK D25 50215 C/29 = US 4244-975

Compsn. for cleaning foodstuffs - contg. protein, preservative and sequestering agent

HENKEL KG AUF AKTIEN 23.12.78-DE-856086

*(D13) (13.01.81) *EP--12-994 + A23c-09/14*

24.10.79 as 087679 C.i.p.4177294 (+ 3.10.78-US-948221) (3pp931)

An aq. proteinaceous concentrate for the cleansing of animal- or vegetable-derived foodstuffs comprises 0.1-20wt.% of water-soluble to water-dispersible proteins' 0-15wt.% of a water-soluble sequestering agent, 0.01-1wt.% of a water-soluble food preservative (or 5-30wt.% of ethanol), 0-0.5wt.% of food colours and food odorants, and water to balance.

Pref. protein is present in amt. 0.5-10wt.% and are native proteins from protein-contg. seeds obtd. by extraction with aq. solns. of inorganic salts, organic salts and weak alkalis.

The concentrate is esp. used to rid the foodstuffs of dirt, blood, insects and insect detrites, and microorganisms, e.g. mould, mildew and pathogenic bacteria.

CIBA D25 27585 Y/16 = US 4245-007

(1,4)-Bis-azolyl-naphthalene optical brighteners - incorporated or applied to organic materials, partic. polyesters, or added to detergents

CIBA GEIGY CORP 10.10.75-CH-013213

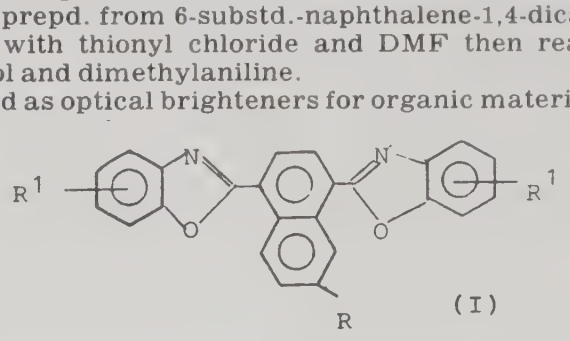
*A60 E23 F06 + P73 (13.01.81) *DE2645-301 B32b-27/36 C11d-09/44 D06l-03/12*

01.08.78 as 930111 (+ 27.9.76-US-727119) (14pp977)

1,4-Bis-(oxalzol-2'-yl)-naphthalene of formula (I) is novel. R is Cl and R' is H, halogen in the 5- or 6-position, 1-4C alkyl or -COOY (where Y is H, salt forming cation as 1-4C alkyl) or 1-4C alkyl sulphonyl.

(I) can be prepd. from 6-substd.-naphthalene-1,4-dicarboxylic acid by heating with thionyl chloride and DMF then reacting with 2-aminophenol and dimethylaniline.

(I) are used as optical brighteners for organic materials.



(I)

BRIM

BRIM 26.12.72 BRISTOL MYERS CO D21 E24 =IT 1048-294
Nitrodiphenylamine dye-based hair colouring prepns - 47158V/26
*BRIM 07.02.77 BRISTOL MYERS CO D21 *CA 1092-030
Aerosol antiperspirant water-in-oil emulsion compsn. - 05781D/05
BRIM 02.04.79 BRISTOL MYERS CO B02 C02 D16 (D13) =FR 2452-930
Antitumour antibacterial complex BBM-928 and individual components - 73461C/42
*BRIM 02.07.79 BRISTOL MYERS CO A96 D21 E19 *BE -884-135
Hair compsn. contg. cationic polymer and amphoteric surfactant - 05695D/05
BRIM 02.07.79 BRISTOL MYERS CO A96 D21 E19 =NL 8003-835
Hair compsn. contg. cationic polymer and amphoteric surfactant - 05695D/05
BRIM 13.07.79 BRISTOL MYERS CO B03 C02 D16 *BE -884-291
*Antimicrobial and antitumour tallysomycin derivs. - 05741D/05
*BROD/ 27.06.79 BRODELIUS P A97 B04 D16 *EP --22-434
Catalyst for prodn. or transformation of natural prods. - 06110D/05
BROO- 29.10.74 BROOKSBANK A88 D18 F07 =IT 1048-015
Leather conveyor belt for fibres - 18856X/11
BRPE 18.09.73 BRITISH PETROLEUM LTD D13 =IT 1048-200
Fibrous meat imitation prodn. by extruding protein-base compsn. - 21361W/13
*BRPE 17.05.79 BRITISH PETROLEUM LTD D15 H03 J01 *GB 2052-285
Coalescer for removing contaminants from liq. - 06363D/05
BRTA 19.02.73 BRIT AMER TOBACCO LTD D18 #IT 1048-112
Flow restriction system - 15491U/11
*BRTO 16.07.76 BOC LTD D15 *GB 1583-394
Sterilisation of liq. by mixing with oxygen - 06334D/05
BUCM 27.07.76 BUCHERGUYER MASCH D15 =GB 1583-583
Aeration of foaming liquors - 10641A/06
BUCM 19.02.79 BUCHERGUYER MASCH D16 (D14) =FR 2453-213
Fermenting or pressing vessel for fruit and vegetables - 62618C/36
BURN- 14.07.76 BURNS FOODS LTD D12 =CA 1091-981
Prodn. of simulated bacon slab - 36278C/20
*BUSC/ 22.10.75 BUSCETTO G D14 *IT 1048-093
Tomato skinning appts. - D/05

CANI 14.03.78 CANADIAN INDUSTRIES LTD A97 D12 (D13) =ZA 7901-163
Shirred stick of tubular casing material for flowable material - 68477B/38
CASS 10.01.79 CASSELLA AG A23 D21 F06 G03 (A87 A96) =ZA 8000-119
Water soluble or dispersible polyester with phosphonic ester gps. - 53853C/31
*CASS 30.06.79 CASSELLA AG D15 E24 *EP --22-197
Sulphur recirculation from coloured waste liquor - 06021D/05
CELA 09.02.72 CELANESE CORP A97 D18 =IT 1048-108
Smoking mixtures - 49533U/35
*CELO 04.04.79 CELLOPHANE SA A88 D15 J01 *FR 2452-950
Decanter with lamellar flow channels between sloping surfaces - 06291D/05
CESK 22.02.78 CESKOSLOVENSKA AKAD A96 B04 D16 =US 4245-064
Polymeric carrier activated for bonding of nucleophilic groups - 66684B/37
CESK 20.06.79 CESKOSLOVENSKA AKAD D25 E16 =GB 2052-583
Non skin-irritating antistatic textile finishing compsn. - 03960D/04
*CESK 21.06.79 CESKOSLOVENSKA AKAD D21 E16 *DE 3023-402
Hydroxy-alkylated amine gp.-contg. fatty acid ester derivs. - 05942D/05
*CHBR- 23.06.79 CHEMIE BRITA GERATE D15 *DE 2925-492
Water purification appliance - 05817D/05
*CHEM 26.06.79 CHEM WERKE HULS AG D25 E14 H07 (E17) *DE 2925-628
Oil-soluble surfactant foam suppressant cpds. - 05822D/05
CHEM 13.07.79 CHEM WERKE HULS AG D23 E15 =EP --22-460
Alkoxymethyl-cyclododecane derivs. - 90212C/51
*CHEM 13.07.79 CHEM WERKE HULS AG D23 E15 *EP --22-462
2-Alkoxyethyl cycloalkyl ether cpds. - 06114D/05
CHEM- 01.06.79 CHEMAP AG D15 =NO 8001-499
Aeration rotor for liquids - 02366D/03
*CHEM- 09.07.79 CHEMAP AG D16 *EP --22-138
Liquid aeration loop reactor - 06002D/05
*CHER/ 06.04.77 CHERNYKH G V D13 *SU -737-461
Vegetable feedstock hydrolysis unit - 07369D/05
CHIY 26.10.74 CHIYODA KAKO KENSET D15 J04 =IT 1048-336
Continuous countercurrent fluidised bed - 37402X/20
CIBA 30.12.71 CIBA GEIGY AG D25 E23 F06 =DS 2262-633
4-biphenylyl-vinyl -1,2,3-triazoles - 40305U/29
CIBA 10.10.75 CIBA GEIGY CORP A60 D25 E23 F06 =US 4245-007
(1,4)-Bis-azolyl-naphthalene optical brighteners - 27585Y/16
CIBA 21.11.75 CIBA GEIGY AG A97 D15 F06 (A11) =CA 1091-866
Continuous washing process for dyeings with water soluble dyes - 34476Y/20
CIBA 22.04.76 CIBA GEIGY AG A97 D18 (A21) =CA 1092-151
Condensates of aromatic sulphonic acid and formaldehyde or aminoplasts - 75885Y/43
CIBA 24.06.76 CIBA GEIGY AG A97 D15 J01 (A11) =CA 1092-083
Cellulose based adsorbent for heavy metal ions - 00045A/01
CIBA 18.05.78 CIBA GEIGY CORP A60 C03 D22 E36 =US 4245-125
Hydrogen peroxide, hydroxylamine and hydrazine adducts - 8621
CIBA 26.06.78 CIBA GEIGY AG C03 D22 E14 F06 =J5 5151-551
Insecticidal isopropyl-phenyl:acetic acid thiol ester derivs. - 03798
CIBA 26.06.78 CIBA GEIGY AG C03 D22 E14 F06 =J5 5151-552
Insecticidal cyclopropane carboxylic acid thiol ester derivs. - 03790
CIBA 22.12.78 CIBA GEIGY AG A97 D25 E14 (E12) =ZA 7906-982
Prepn. of washing powder contg. optical brightener - 49144C/28
*CIBA 02.04.79 CIBA GEIGY AG C03 D22 E14 F06 *FR 2453-149
Alpha-thioamide 3-halo:phenoxy-benzyl cyclopropane-carboxyla
06307D/05
CIBA 06.06.79 CIBA GEIGY AG D18 E24 =BR 8003-523
Pelt or fur dyeing with anionic dye - 02643D/03
CIBA 13.06.79 CIBA GEIGY AG B04 D16 =EP --22-425
Cultures of Myxococcus fulvus and its extracts - 00129D/01
CIBA 13.06.79 CIBA GEIGY AG B04 D16 =EP --22-425
Cultures of Myxococcus fulvus and its extracts - 00129D/01
CIPA- 07.06.79 CIPARI SA CIE INT D18 =EP --22-587
Prodn. of colloidally stable beer - 43734C/25
CLOR- 23.06.79 CLOROX CO D25 E34 #DE 2925-732
Powder bleach contg. sodium percarbonate - 78992B/43
CNSM 24.06.76 CENTRALE SUIKER MIJ NV D15 =CA 1092-259
Anaerobic sewage treatment - 02580A/02
*COKE 08.06.79 COCA-COLA CO D13 E24 *BR 8003-539
Extraction of anthocyanin colour from natural products - D/05
COLG 15.03.71 COLGATE PALMOLIVE CO D25 E17 =DS 2209-200
Clear detergent compsn - 59065T/37
COLG 17.06.71 COLGATE PALMOLIVE CO A96 B02 D21 E13 =IT 104
255
Transparent antimicrobial hairtonic - 00318U/01
COLG 01.10.71 COLGATE PALMOLIVE CO D21 =IT 1048-262
Gas-free dentifrice gels or pastes prodn - 13937U/10
COLG 31.10.74 COLGATE PALMOLIVE CO A96 D22 =CA 1091-853
Disposable diaper with pleat securing tape - 82924W/50
COLG 31.10.74 COLGATE PALMOLIVE CO D22 =CA 1091-854
Disposable baby's nappy with elastic belt and adhesive band - 26477X
COLG 29.12.75 COLGATE PALMOLIVE CO D22 =CA 1091-856
Disposable diaper folded into box pleats - 03620Y/02
COLG 10.05.77 COLGATE PALMOLIVE CO D25 E19 =US 4244-840
Opaque liquid detergent compsn. for cleaning hard surfaces - 67110A
COLG 15.05.78 COLGATE PALMOLIVE CO D25 E33 (E16) =ZA 7902-11
Detergent compsn. for washing powders contg. specified clay
69974B/39
COLG 15.05.78 COLGATE PALMOLIVE CO D25 E33 (E16) =ZA 7902-182
Detergent compsn. for washing powder contg. meta-kaolin - 69975B/3
COLG 25.05.78 COLGATE PALMOLIVE CO A84 D25 E16 F06 (A25 E13)
=ZA 7902-315
Polyurethane foam dispenser - 71792B/40
COLG 25.05.78 COLGATE PALMOLIVE CO D25 E19 F06 =ZA 7902-316
Liq. bleach and fabric softening compsn. - 68037B/37
COLG 29.05.79 COLGATE PALMOLIVE CO A96 B05 D21 (A14 B04) #SI
7904-652
Magnesium poly:carboxylate complex anti:tartar compsns. - 79129B/4
COLG 05.07.79 COLGATE PALMOLIVE CO A96 D21 =DE 3023-461
High viscosity dentifrice compsn. contains anionic polyelectrolyt
80741C/46
COLG 05.07.79 COLGATE PALMOLIVE CO A96 D21 =NL 8003-714
High viscosity dentifrice compsn. contains anionic polyelectrolyt
80741C/46
COMM- 03.04.79 COMMODITIES TRADING D13 =FR 2452-880
Continuously alkalising and pasteurising cocoa beans - 77304C/44
CONN/ 09.04.74 CONN P B05 C03 D22 E14 (D15 D21) #IT 1048-169
Disinfectant concentrate contg alkyl benzalkonium halides - 69103W/4
*CORG 28.09.77 CORNING GLASS WORKS B04 D16 J04 *US 4245-038
Detecting Neisseria bacteria in sample - 07726D/05
*CORG 13.07.79 CORNING GLASS WORKS D21 L01 *EP --22-655
Glass ceramic dental article or tool - 06224D/05
CORP 26.06.72 MAIZENA GMBH C03 D13 =DS 2231-198
Use of natural lipides occuring in cereal starch - 05835V/04
CORP 12.05.76 CPC INTERNATIONAL INC D17 =CA 1092-043
Conc. dispersions of liquefied starch prepn. - 92371X/50
CORP 22.01.79 CPC INTERNATIONAL INC D13 (D17) =US 4244-748
Sepg. a corn starch milk into protein and starch - 15966A/09
*CORP 20.12.80 CPC INTERNATIONAL INC D13 *RD -201-051
Storage stable soybean curd - 07061D/05
CRAF- 26.05.77 CRAFT DENTAL LAB A96 D21 #CA 1091-861
Mouldable compsn. for dental use - 13413B/07
CRDC 14.05.79 CORDIS CORP A88 D15 J01 =GB 2052-300
Hollow fibre element for ultrafiltration etc. - 84773C/48
CRIS/ 08.01.73 CRISAFULLI D D18 =IT 1048-403
Filter for tar removal from tobacco smoke - 44078V/24
CSME- 02.09.74 COST MECC BERNARDIN D23 =IT 1048-287
Extn. of oils from fatty raw materials - 05602X/04

/ 28.03.77 DAIBERL K D21 =GB 1583-714
uld lining for dental prosthesis - 51679A/29
04.07.79 DAIICHI RADIOISOTOP B02 D16 S03 =NL 8003-854
Amino-4-hydroxy-pteridine derivs. - 05979D/05
11.01.80 DAIICHI RADIOISOTOP B02 D16 S03 *DE 3025-226
Amino-4-hydroxy-pteridine derivs. - 05979D/05
12.05.79 DAICEL CHEM INDS LTD D15 J01 *J5 5152-502
embrane filtering element for reverse osmosis etc. - 06878D/05
= 29.12.77 DAIRY IND RES INST D13 *SU -736-934
ied milk prodn. appts. - 07172D/05
K 13.12.78 GRACE GMBH D21 E36 =ZA 7906-752
fg. silica gel used partic. in tooth paste - 29226C/17
U- 23.04.71 DANSKE SUKKERFABRIK D17 =IT 1048-437
rification of sugar syrups - 73247T/46
D/ 04.04.79 DAUDIGNAC J D11 *FR 2453-030
ecorations for cakes, confectionery etc. - 06297D/05
F 10.05.77 DCA FOOD INDS INC D11 =US 4244-980
east fermentable dough contg. soft wheat flour - 88070A/49
M 03.04.79 DEGREMONT SA D15 E33 *FR 2453-107
epn. of silico aluminate suspension used as flocculant - 06302D/05
S 20.07.72 DEUTSCHE GOLD & SILBER C03 D15 =IT 1048-420
erile, algae-free water - 07221V/05
S 26.09.74 DEUTSCHE GOLD & SILBER D15 E17 =J8 1000-114
emoving formaldehyde from waste water - 26476X/15
S 26.05.77 DEUTSCHE GOLD & SILBER D22 E16 (E12 E37) =GB 1583-

eodorising liquid manure esp. of pigs and poultry - 86111A/48
S 02.05.79 DEGUSSA AG D15 E36 J03 S03 =J5 5151-255
easuring concn. of dissolved cpds. - 80714C/46
- 18.09.76 DEJ INT RES CO D13 =GB 1583-344
stant coffee extract prepn. - 23624A/13
18.01.77 DELALANDE SA A96 D22 =CA 1092-026
aminated wound dressing resembling natural skin - 53882A/30
X 01.06.70 DENTSPLY INT INC A96 D21 (A14) =IT 1048-387
notopolymerisable dental treatment compsn-based on aromatic - 0638S/51
'H/ 17.03.79 DEW H O R D15 T06 X25 *GB 2052-793
udge removal from settling tank - 06426D/05
E 22.09.72 DIVERSEY SPA D22 E16 *IT 1048-141
omplexes of bromine with esters and ethers - D/05
IW 06.04.72 DOUWE EGBERTS KONINK TAB D23 E17 (D13) =IT 1048-

ercaptoalcohols and esters - 64260U/43
VC 01.06.76 DOW CHEMICAL CO B04 D16 S03 S05 (D13) =J8 1000-

pase compsn. for glycerol ester determn. - 81075Y/45
VC 16.04.79 DOW CHEMICAL CO A26 D22 (A97) *EP --22-148
omplexes of poly-oxazoline or poly-oxazine and poly-halide anion - 6003D/05
VC 09.07.79 DOW CHEMICAL CO A96 D22 F07 *EP --22-227
exible absorbent laminate contg. crushed polyelectrolyte film - 6027D/05
VO 30.04.79 DOW CORNING CORP D17 E36 =FI 8001-367
ecovery of hydrochloric acid from a cellulose hydrolysate - 82991C/47
IN 29.04.72 DYNAMIT NOBEL AG D13 E17 =DS 2221-277
atty acid/lactic acid condensate prodn - 61490U/41
ON- 02.04.79 DYONA A97 D13 X27 *FR 2452-906
ven baking chips in hot air instead of frying - 06284D/05

I 09.05.79 EBARA INFILCO KK D15 J01 *J5 5149-673
ompacting waste powder contg. heavy metals - 06468D/05
R 10.05.79 EBARA MFG KK D15 K06 *J5 5149-652
egenerating ion exchange resin - 06467D/05
R 15.05.79 EBARA MFG KK D15 K06 *J5 5152-554
Vashing spent ion exchange resin - 06919D/05
E/ 06.01.77 EIGENSON A S D15 H05 *SU -737-362
iochemical removal of organic substances from petroleum effluents - 7274D/05
22.04.71 EISAI KK C03 D13 =IT 1048-433
nimal feed contg hydroxamic acids - 74398T/47
S- 18.07.73 ELASTIN WERK AG A21 D12 (A97) =IT 1048-184
hin tubular film e.g. for sausage skins - 09101W/06
19.09.74 PEROXID-CHEMIE GMBH D25 E34 =IT 1048-492
odium perborate monohydrate resistant to abrasion - 24437X/14
01.02.79 ELI LILLY & CO B02 C02 D22 E13 =DK 8000-414
enicillin or cephalosporin imino-halide prepn. - 60906C/35
A= 16.12.77 EST MEAT DAIRY IND D12 *SU -736-930
Meat pieces cutter - 07169D/05
E- 29.05.79 ENI A97 D13 =GB 2052-515
oagulation of milk - 88671C/50
O= 20.03.75 EREV ZOOL VETER INS D25 E16 *SU -735-630
ompsn. for cleaning and disinfecting in food, e.g. dairy industry - 7092D/05
O 13.09.77 EXXON RES & ENG CO D25 E13 H07 M14 #CA 1092-089
ubricants and concentrates contg. bis-oxazoline cpds. - 40498B/21

ESSO 07.05.79 EXXON RES & ENG CO D15 E14 H05 =J5 5149-680
Selective adsorption of naphthalenic Hydrocarbon s) from waste water - 83078C/47
ETHI 15.12.76 ETHICON INC A87 D22 F06 =GB 1583-390
Absorbent multifilament suture with improved knotting properties - 48092A/27
*EXPD 03.07.79 EXPRESS DAIRY LTD D13 *DE 3024-356
Lowering milk-derived whey protein gelling point - 05960D/05
EXPD 03.07.79 EXPRESS DAIRY LTD D13 =NL 8003-624
Lowering milk-derived whey protein gelling point - 05960D/05

FABN 22.01.65 FABCON INC D17 E17 =IT 1048-378
Crystallization of sugar - 16667T/10
FARB 27.08.77 BAYER AG B03 C02 D13 =EP G000-947
Tri:hydroxy-piperidine derivs. - 18396B/10
FARB 10.05.79 BAYER AG B03 D02 =J5 5151-574
Antimycotic compsn. for human or veterinary medicine - 84587C/48
FARB 25.05.79 BAYER AG A96 D22 E13 (E14) =DK 8002-274
Non-yellowing, weather resistant medical casts - 88504C/50
FARB 25.05.79 BAYER AG D23 E14 =US 4245-124
Iso:camphoryl guaicol ethyl ether derivs. - 88500C/50
FARB 01.06.79 BAYER AG D18 E21 =BR 8003-419
Azo dyes for simultaneous tanning and dyeing of leather - 88578C/50
FARB 05.06.79 BAYER AG B03 C02 D13 =NO 8001-553
Bis:tri:hydroxy-piperidinyl alkane derivs. - 90331C/51
*FARB 27.06.79 BAYER AG B02 C02 D13 (D22) *DE 2925-963
Antibacterial and beta-lactamase inhibitor penicillanic acid derivs. - 05840D/05
FARB 29.06.79 BAYER AG D25 E34 =EP --22-199
Bleaching liq. with low sodium chloride content - 02178D/03
FARB 07.07.79 BAYER AG B03 D16 =EP --22-206
Optically pure alpha-amino-heterocyclyl-acetic acid derivs. - 02228D/03
*FARB 11.07.79 BAYER AG D15 E37 *EP --22-525
Reducing chemical oxygen demand in waste water - 06149D/05
*FARB 11.07.79 BAYER AG D15 E37 *EP --22-526
Reducing chemical oxygen demand in waste water - 06150D/05
*FARE= 01.02.78 FAR E POLY D12 T06 X25 *SU -736-932
Fish filleting machine tools control appts. - 07171D/05
FARH 24.10.75 HOECHST AG A96 D22 F07 =DS 2547-650
Absorbant laminates for use as napkins etc. - 29118Y/17
FARH 00.00.78 HOECHST AG D15 =DE 2925-895
sludge-water mixt. - 04198D/04
FARH 11.03.78 HOECHST AG D13 E12 =US 4244-776
Potassium sorbate granulation - 68433B/38
FARH 19.04.79 HOECHST AG C03 D13 =FI 8001-230
Alkaloid and lipoid cpd. extn. from ground lupin - 80976C/46
FARH 27.06.79 HOECHST AG C02 D22 E13 F09 =DE 2925-896
1-Tetra:substd. ethyl 1,2,4-triazole derivs. - 04197D/04
FARH 30.06.79 HOECHST AG A11 D22 F06 (A96) =DE 2926-568
Hydrophilic graft polymer from animal protein - 04199D/04
*FARH 12.07.79 HOECHST AG A97 D25 E13 (E16) *EP --22-555
Fabric softeners contg. quat. ammonium salts. - 06171D/05
*FARH 13.07.79 HOECHST AG C02 D22 E13 G02 *EP --22-551
2-Di:halo-methylene-3-carboxy-3-halo-5-oxo pyrrolidine cpds. - 06168D/05
*FARH 14.07.79 HOECHST AG A97 D25 E14 (E16) *EP --22-562
Quat. ammonium salts contg. acyloxyalkyl gp. - 06174D/05
FAYR/ 29.06.79 FAY R J D12 (D11) #GB 2052-350
Moulding food articles on rotary drum carrying dies - 55069C/31
FERR- 01.06.79 FERROKEMIA IPARI SZ A96 B03 D21 E13 =NO 8000-039
Compsn. used as cosmetic prod. e.g. shampoo, ointment - 56909C/33
*FERR/ 05.04.79 FERRIER C D11 *FR 2453-094
Guide lanes for rusks between oven and packing station - 06301D/05
FJIE 19.11.75 FUJI ELECTRIC CO LTD D15 J01 M24 =J8 1000-090
Waste gas or liquid treatment equipment - 71181Y/40
FMCC 11.06.71 FMC CORP A96 B07 D21 =IT 1048-254
Compsns contg microcrystalline material - 79869T/50
*FOOD= 13.12.76 FOOD IND AUTOMAT D17 S03 X25 *SU -737-460
Sugar syrup solids content monitor - 07368D/05
*FOOD= 16.10.78 FOOD IND EXTRAMURAL D16 *SU -737-447
Maturation of wine and spirit - 07355D/05
*FRAN/ 27.02.69 FRANZIOLI G D15 *IT 1048-430
Potable and industrial water prodn. appts. - D/05
*FROM 04.04.79 FROMAGERIES BEL-LA VACHE C03 D13 *FR 2452-881
Isolation of proteins from lactoserum - 06280D/05
*FROM 06.04.79 FROMAGERIES BEL-LA VACHE D13 *FR 2452-879
Ultrafiltered milk prods. used in cheese mfr. - 06279D/05
FRRR 17.08.76 FERRERO P & CIA SPA D11 =CA 1091-977
Baba type fancy cake - 90091Y/51
*FRRR 20.07.79 FERRERO OHG D11 *DE 2929-496
Smooth-surfaced wafer prodn. - 05896D/05
*FRRR 11.09.79 FERRERO P & CIA SPA D13 *BE -885-153
Sugared protein food prod. in foamed plastic form - 05753D/05
*FUJI/ 12.05.79 FUJIWARA S D13 *J5 5150-875
Natural conc. colouring prepn. for food use - 06612D/05

GABA 01.11.61 GABA AG A96 B05 D21 =IT 1048-377
Dental compn - 15006F/00
GELM 21.10.74 GELMAN INSTRUMENT D15 =IT 1048 064
Water filter for household tap has annular filter chamber - 34315X/19
GELM- 16.05.78 GELMAN INSTRUMENT C D15 J01 =US 4244-820
Filter element for cross-flow filtration - 84675B/47
GENE- 05.07.79 GENENTECH INC B04 D16 =DE 3023-627
Cloning vector contg. semi-synthetic gene - 03727D/04
GENE- 05.07.79 GENENTECH INC B04 D16 =EP --22-242
Cloning vector contg. semi-synthetic gene - 03727D/04
GENM 27.07.70 GENERAL MILLS INC D13 =IT 1048-390
Protein fibering - 10109T/07
*GENM 31.05.79 GENERAL MILLS INC D12 *US 4244-981
Non dairy static freezable frozen dessert compsn. - 07705D/05
GENO 14.08.73 GENERAL FOODS CORP B05 D13 E19 #IT 1048-135
Artificial sweetening compsns - 16975W/10
GENO 21.11.73 GENERAL FOODS CORP B05 D13 (B04) =IT 1048-187
Low-calorie sweeteners contg. dipeptides - 36172W/22
*GERA/ 21.11.77 GERASIMENKO A A A35 D16 *SU -737-451
Fungal strain Cephalosporium acremonium BKMF 2033 - 07359D/05
*GIDR= 25.05.77 GIDROLIZPROM IND AS D17 *SU -735-633
Hydrolytic sugar e.g. glucose, etc. prodn. solns. purificn. - 07095D/05
*GILD 05.03.79 GILMAN BROS CO D22 F07 *US 4244-368
Incontinence garment for disposable or reusable liners - 07526D/05
*GINE/ 04.04.79 GINER RIBES D D22 E36 S05 X27 *FR 2452-934
Space heating unit - 06287D/05
GIVA 13.06.79 GIVAUDAN L & CIE SA D23 E15 (D13) =BR 8003-579
Perfume- and or flavouring-materials or mixts. - 04097D/04
GIZA- 09.05.79 GIZA SPA C04 D16 E17 H06 (D15) =FI 8001-349
Methane and fertiliser sludge produced from animal farm effluent - 67764C/39
GIZA- 09.05.79 GIZA SPA C04 D16 E17 H06 (D15) =FI 8001-350
Methane and agricultural fertiliser sludge prodn. - 67763C/39
*GOBU= 06.12.76 GORKI BUTTER MEAT COMB D23 *SU -737-436
Hydrogenation of vegetable oils and fats - 07345D/05
*GOND/ 17.06.72 GONDI P D16 *IT 1048-434
Freeze concn. of alcoholic solns. - D/05
*GONS/ 20.12.80 GONS H A88 D15 J01 (A11 A26) *RD -201-018
Coated polyimide membranes, esp. for desalination - 07047D/05
*GOOR 11.09.79 GOODRICH B F CO A14 C03 D15 (A97 D22) *BE -885-157
Absorbent copolymer from neutralised acrylic acid - 05755D/05
*GPOL= 23.02.78 GEOR POLY D14 *SU -735-886
Free-flowing material vibration dryer for food industry - 07119D/05
GRAC 05.08.76 GRACE W R CO D13 =US 4244-982
Foamed food prodn. esp. from fruit or vegetable puree - 86653Y/49
GREC 29.03.76 GREEN CROSS CORP B04 D16 =J8 1000-032
(L)-Asparginase immobilised in human fibrin - 80618Y/45
GREC 07.05.79 GREEN CROSS CORP B05 D13 =FI 8001-336
Parenteral nutrition fatty emulsion - 82833C/47
GROU/ 31.08.78 GROUNDWATER F M D11 #US 4244-460
Removing biscuit stacks from multiple infeed conveyors - 71654C/41
*GUIT/ 02.04.79 GUITARD B C A D13 *FR 2452-883
Extn. and sepn. pf cocoa beans from their pods - 06281D/05
GULO 27.04.79 GULF OIL CORP D16 (D17) =FI 7902-997
Reuse of endoglucanase and cellobiohydrolase enzymes - 67666C/38
*GUNT- 09.04.79 GUNTERT & PELLATON D13 *US 4244-252
Onion slicer with tangential supply conveyors - 07509D/05

HAAS/ 25.03.77 HAAS F D11 =GB 1583-334
Cream wafer stacking machine - 71078A/40
HAGE- 07.04.79 HAGER & ELSASSER D15 =FR 2453-112
Power station water saving system - 73795C/42
HANA- 24.10.74 HANAU F SA B07 D14 =IT 1048-341
Thermal treatment of products - 34333X/19
HANS- 04.05.77 CHR HANSENS LAB INC D13 (D16) =CA 1092-040
Conc. cultures of lactic acid bacterial - 70551A/39
HAWK 08.06.79 HAWKER SIDDELEY BRA D15 =GB 2052-283
Water screen comprising travelling band of panels - 02415D/03
HEID/ 17.01.77 HEIDA A D12 =GB 1583-721
Meat hook for refrigerator trucks - 53857A/30
HENK 21.08.72 HENKEL & CIE GMBH D21 E24 =IT 1048-134
Cyanomethane sulphonamido benzenes - 15527V/09
HENK 24.08.72 HENKEL & CIE GMBH D21 =IT 1048-133
Pre-shaving lotion - 19645V/11
HENK 22.06.73 HENKEL & CIE GMBH B03 D21 E13 =IT 1048-178
2-Furfural-acetal antiinflammatories - 01993W/02
HENK 04.10.74 HENKEL & CIE GMBH D25 E17 =IT 1048-218
Washing or bleaching of textiles with ap. baths - 28698X/16
HENK 04.10.74 HENKEL & CIE GMBH A97 D25 E36 (E11) =IT 1048-219
Washing agent for textiles contg. aluminosilicates - 28685X/16
HENK 04.10.74 HENKEL & CIE GMBH A97 D25 E19 (E37) =IT 1048-220
Washing agent for textiles contg. aluminosilicate calcium binders - 28684X/16
HENK 10.10.74 HENKEL & CIE GMBH D25 E37 =IT 1048-247
Powdery detergent contg. water-insoluble silicate - 30515X/17
HENK 10.10.74 HENKEL & CIE GMBH A97 D25 E37 =IT 1048-248
Stable alumino or boro silicate suspensions contg. disper
31842X/18
HENK 23.12.78 HENKEL KG AUF AKTIEN D25 (D13) =US 4244-975
Compsn. for cleaning foodstuffs - 50215C/29
HENK 25.06.79 HENKEL KG AUF AKTIEN D23 E15 =DE 2925-622
Acetyl-tri:methyl-bi:cyclo-nonene isomer mixt. perfume - 04187D/
*HENK 27.06.79 HENKEL KG AUF AKTIEN A97 D25 E19 *DE 2925-859
Textile rinsing compsn. improving softness and absorption cap
05832D/05
*HENK 02.07.79 HENKEL KG AUF AKTIEN D15 *DE 2926-606
Waste water purification by pptn. - 05854D/05
HERC 06.06.79 HERCULES INC A11 D25 (A97) =DE 3020-689
Cellulose ether with long-chain hydrocarbon substit. - 01233D/02
HESS/ 31.07.72 HESSELGREN S G B05 D21 =IT 1048-132
Anti-microbial compsn for odontology - 13875V/08
*HIEJ 17.05.79 HITACHI PLANT ENG CONST D15 *J5 5152-589
Waste water purificn. with reduced sludge generation - 06924D/05
HISM 03.04.79 HISAMITSU PHARM KK A96 B05 D22 =FR 2452-935
Adhesive wound dressings - 76316C/43
*HITA 18.05.79 HITACHI KK D15 *J5 5152-510
Sedimentation pond sludge drain control appts. - 06884D/05
*HITJ 18.05.79 HITACHI ENGINEERING KK D15 *J5 5152-510
Sedimentation pond sludge drain control appts. - 06884D/05
*HITK 17.05.79 HITACHI METAL KK D15 *J5 5152-508
Sand scooper in sedimentation pond - 06882D/05
*HITK 17.05.79 HITACHI METAL KK D15 *J5 5152-509
Sand excavator for removing pptd.- sand from sedimentation p
06883D/05
HOFF 06.07.76 HOFFMANN-LA ROCHE AG D13 =GB 1583-573
Hard caramel prepn. using xylitol - 02120A/02
HOFF 06.08.76 HOFFMANN-LA ROCHE AG B03 C02 D13 (D22) =
1583-408
Antibiotic obtd. by culturing Streptomyces strain - 10289A/06
HOFF 02.06.78 HOFFMANN-LA ROCHE INC D13 E24 =US 4245-109
Synthesis of red food dye astaxanthin - 89714B/50
*HOFF 10.05.79 HOFFMANN-LA ROCHE AG B04 D16 *J5 5150-896
Novel protease - D/05
*HOKA 17.07.79 HOKKAIDO SUGAR KK A60 D21 E13 F06 *EP --22-647
Di-methylamino-indan-di-one useful as powerful UV absorbe
06219D/05
*HOPS= 10.07.78 HOPS GROWING RES D16 *SU -735-631
Freshly-picked hops treatment - 07093D/05
HOWM- 14.05.76 HOWMEDICA INC D21 M26 =J5 5152-147
Low value dental or jewellery alloy - 21622Y/12
HOWM- 14.05.76 HOWMEDICA INC D21 M26 =J5 5152-148
Low value dental or jewellery alloy - 21622Y/12
HPKA- 30.05.79 H & P KAAS SYSTEM T D15 =SE 8004-064
Purificn. of chlorinated water recycled for swimming pool et
73486C/42
HUBE 15.09.76 HUBER J M CORP, B06 D21 M14 =US 4244-707
Fluoride tooth:paste compsn. suitable for unlined aluminium tub
19654A/11
HYDR= 17.04.79 HYDROLYSIS IND B05 D16 E19 #FI 7901-238
Aminoacid fermentation producing microorganism process - 73577C/

ICIL 09.12.70 IMPERIAL CHEM INDS LTD B04 C03 D16 (D13) =IT 1048
102
Protein prodn - 40494T/25
ICIL 16.03.72 IMPERIAL CHEM INDS LTD A97 D18 =IT 1048-113
Smoking mixt - 58649U/40
ICIL 18.12.72 IMPERIAL CHEM INDS LTD A97 D22 (D15) =IT 1048-163
Hygiene control in swimming pools - 52001V/29
ICIL 16.10.74 IMPERIAL CHEM INDS LTD C03 D13 (D16) =IT 1048-478
Unicellular protein preparation as milk substitute for animals - 31843X
ICIL 02.04.76 IMPERIAL CHEM INDS LTD D16 E17 (D13 D15) =CA 1092
039
Cell culture with specified carbon source addition - 70754Y/40
ICIL 10.10.78 IMPERIAL CHEM INDS LTD A96 D22 S05 X25 =ZA 7905
323
Device for contacting living tissue - 36935C/21
ICIL 05.01.79 IMPERIAL CHEM INDS LTD A14 D21 E11 (A28 A96 E36)
=ZA 8000-053
Dispersion of siliceous particles in organic medium - 53808C/31
IDAT/ 20.08.75 IDA T D13 (D16) =J5 2025-100
Pale coloured, clear soy sauce prodn. - 06993D/05
*IDAT/ 20.08.75 IDA T D13 (D16) *J8 1000-018
Pale coloured, clear soy sauce prodn. - 06993D/05
*IGLO- 12.06.79 ETAB IGLOO D15 *EP --22-422
Mfg. carbonated drinks esp. for fresh drinks dispenser - 06104D/05
*IHAR/ 08.05.79 IHARA M D15 J01 *GB 2052-469
Filter for cleansing esp. dry cleaning fluid - 06386D/05
IMPT 23.09.71 IMPERIAL GROUP LTD D18 =IT 1048-261
Smoking material - 12416U/09
INFL 26.04.71 INT FLAVORS & FRAGR INC D13 E16 (E17 E37) =IT 1048
253
Sea food mixture prepn - 74720T/47

LINK-

LINK- 10.12.76 LINKER MACH INC D12 =DE 2759-892
Sausage casings peeling apparatus - 30193A/16
*LINM 29.06.79 LINDE AG D15 *DE 2926-441
Oxygenation of liquids for biological treatments - 05842D/05
*LKBP 04.07.79 LKB-PRODUKTER AB B04 D16 *EP --22-432
Bio:luminescent determn. of creatine kinase activity - 06108D/05
*LKBP 12.07.79 LKB PRODUKTER AB B04 D16 *EP --22-757
Bio:luminescent method for determining creative kinase - 06275D/05
*LOWD- 03.05.79 LOW & DUFF DEV LTD D13 T06 X25 *GB 2052-675
Raw chocolate refining by paddled rotor in drum - 06419D/05

*MADI- 04.07.79 MAQ MADIA IND COM D11 *BR 7904-190
Manioc flour toaster - D/05
*MAGN- 08.09.72 MAGNUSON ENG INC D14 *IT 1048-414
Industrial scale skinning process - D/05
MAGU- 14.09.76 MAGURIT G RITTERSHA D12 =GB 1583-674
Frozen metal block cutting machine - 36719A/21
*MANC- 25.06.79 MANCHEM LTD C01 D22 E19 F09 (C03) *GB 2052-265
Divalent metal or boron cpds. and carboxylic acid radical - 06361D/05
*MASI 23.03.79 MASSACHUSETTS INST TECH A11 D16 *US 4245-046
Microbiological prodn. of xanthan gum - 07731D/05
MASI 17.05.79 MASSACHUSETTS INST TECH B02 D16 =GB 2052-486
Antibacterial iso:penicillin n derivs. prodn. - 86631C/49
*MATU 14.05.79 MATSUSHITA ELEC IND KK D15 E36 J04 *J5 5151-254
Cyanide ion selective electrode - 06680D/05
*MAUG 13.07.79 AUGSBURG NURNBERG AG D15 *DE 2928-392
Sea water desalination - 05887D/05
*MAYR/ 13.07.79 MAYR A D12 *EP --22-570
Sausage skin applicator - 06178D/05
MEAT- 05.06.79 MEAT IND RES NZ D12 X25 =BR 8003-492
Hide pulling while electrically shocking carcass - 04123D/04
MEDI= 04.01.79 MED TECH RES INST A96 D22 =FR 2452-914
Bone tissue fixing elements - 53656C/31
MEDL- 04.05.79 MEDLINE AB A96 D22 =FI 8001-416
Device for closing body passages, esp. for use as contraceptive - 90094C/50
MEDZ 29.06.79 VEB KOMB MEDIZIN LA A96 D21 =NL 8003-713
Mineral tooth contg. silane-coupled plastic coating - 03937D/04
MEID 16.12.75 MEIDENSHA ELEC MFG KK D15 J01 =J5 2073-551
Device for treating waste water - 06994D/05
*MEID 16.12.75 MEIDENSHA ELEC MFG KK D15 J01 *J8 1000-084
Device for treating waste water - 06994D/05
MERI 02.11.76 MERCK & CO INC B02 C02 D13 =GB 1583-453
(5)-Deazariboflavin and derivs. in anticoccidiosis compsns. - 75777Y/42
MERI 10.05.77 MERCK & CO INC D11 =US 4244-980
Yeast fermentable dough contg. soft wheat flour - 88070A/49
*MERI 04.06.79 MERCK & CO INC A11 D13 (D21) *GB 2052-542
Prepn. of cellulase free xanthan gum - 06398D/05
*MERI 27.09.79 MERCK & CO INC A60 B03 D22 F09 *US 4244-963
N-Sulphonyl-alkyl-piperidine derivs. - 07697D/05
*MEST- 18.09.79 MESTER SYSTEMES D13 *BE -885-232
Treating washed and peeled potatoes - 05771D/05
*MIDO/ 16.05.79 MIDORIKAWA K A88 D15 J01 *J5 5152-587
Water purificn. distn. appts. - 06922D/05
MINN 05.04.79 MINNESOTA MINING CO D22 =FR 2452-915
Tibial prosthesis for knee joint - 63936C/36
*MINN 29.06.79 MINNESOTA MINING CO D16 *US 4245-043
Multi-well tray for microorganism identification - 07729D/05
*MINN 29.06.79 MINNESOTA MINING CO D16 *US 4245-052
Translucent microbial profile tray - 07734D/05
MINU 04.05.79 MINNESOTA UNIVERSITY B04 D16 J01 =FI 8001-439
Fractional pptn. of protein(s) - 82635C/47
MITK 09.05.79 MITSUI TOATSU CHEM INC B02 D16 E13 =DE 3017-861
L-Tryptophan prodn. from D.L- or D-serine - 85628C/48
*MITN 11.05.79 MITSUBISHI GAS CHEM IND D15 *J5 5149-686
Removing copper content of waste waters - 06472D/05
*MITO 15.05.79 MITSUBISHI HEAVY IND KK D15 E31 J01 M25 (E33) *J5 5152-547
Adsorbing agent for recovering uranium and strontium from sea water - 06914D/05
MITP 28.10.74 MITSUBISHI PETROCH KK D15 M14 =IT 1048-335
Electrolytic waste water treatment - 34375X/19
*MITQ 08.05.79 MITSUBISHI ELECTRIC CORP D15 E36 *J5 5149-677
Treating sulphide-contg. alkali waste liquor - 06469D/05
*MITQ 09.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5149-623
Appts. for producing water from gas contg. water vapour - 06444D/05
*MITQ 09.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5149-624
Appts. for water prodn. from the atmosphere in a desert - 06445D/05
*MITQ 09.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5149-625
Device for recovering water from atmos. - 06446D/05
*MITQ 09.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5149-626
Device for removing water from gas e.g. air - 06447D/05
*MITQ 09.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5149-627
Appts. for producing water from moisture in air - 06448D/05
*MITQ 09.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5149-628
Appts. for the prodn. of water from atmos. - 06449D/05
MITQ 09.05.79 MITSUBISHI ELECTRIC CORP D15 =J5 5149-629
Water recovery from moist atmospheric air - 86722C/49
MITQ 15.05.79 MITSUBISHI ELECTRIC CORP D15 =J5 5152-519
Water recovery from moist atmospheric air - 86722C/49
*MITQ 15.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5152-520
Appts. for producing water from moisture in air, esp. in desert a 06893D/05
MITQ 15.05.79 MITSUBISHI ELECTRIC CORP D15 =J5 5152-521
Water recovery from moist air - 90548C/51
*MITR 08.05.79 MITSUBISHI RAYON KK D15 *J5 5149-687
Water treatment process - 06473D/05
MITU 31.01.75 MITSUBISHI CHEM IND KK D15 E17 =J8 1000-117
Treating waste water from acetaldehyde mfr by Wacker proc 71243X/38
MITU 09.03.77 MITSUBISHI CHEM IND KK B04 D16 =J8 1000-037
Fermentative prodn. of antitumour substance P9-12 - 80950A/45
*MITU 11.05.79 MITSUBISHI CHEM IND KK B01 D16 *J5 5150-893
Arthrobacter simplex microbes - 06615D/05
*MIUR 09.05.79 MIURA ENG INT KK D15 *J5 5149-617
Continuous water filtration - 06440D/05
*MOFA= 06.12.76 MOSC FATS RES INST D23 *SU -737-436
Hydrogenation of vegetable oils and fats - 07345D/05
*MOFJ 19.09.78 MOSCOW FINE CHEM TECHN D16 *SU -737-444
Distillation of alcoholic fermentation liquor - 07352D/05
*MOFO= 17.11.77 MOSC FOOD IND TECH D17 *SU -737-459
Sugar juice thermal treatment unit - 07367D/05
*MOFO= 03.10.78 MOSC FOOD IND TECH D14 *SU -737-446
Fruit pulp juice extractor - 07354D/05
MOLL/ 06.07.79 MOLL H G D15 =EP --22-423
Waste water flocculation treatment - 02235D/03
MOLN 02.07.79 MOLNLYCKE AB D22 F07 =BE -884-109
Disposable baby napkin with enveloped elastic thread structur 03982D/04
MOLN 02.07.79 MOLNLYCKE AB D22 F07 =NL 8003-806
Disposable baby napkin with enveloped elastic thread structur 03982D/04
MONA- 05.05.78 MONA INDUSTRIES INC A96 D25 E16 =ZA 7902-156
Mild cosmetic detergent compsn. esp. for shampoos and bath 91499A/51
MONS 05.11.73 MONSANTO CO B05 D13 E14 =NO 8003-386
Alpha-L-aspartyl-L-phenylalanine alkyl ester prepn. - 32880W/20
MONS 10.10.78 MONSANTO CO D11 E17 =ZA 7905-396
Sorbic acid derivs. as speciality bread preservatives - 27753C/16
*MONS 29.05.79 MONSANTO CO D21 E33 *US 4244-931
Di:calcium phosphate di:hydrate compsns. - 07682D/05
*MOVA= 25.05.76 MOSC VACCINE SERUM B04 D16 *SU -737-452
Enterobacteria differentiation nutrient medium - 07360D/05
*MOVA= 21.07.77 MOSC VACCINE SERUM B04 D16 *SU -737-453
Whooping cough bacteria culturing - 07361D/05
MULL/ 06.09.72 MULLER H C03 D13 =IT 1048-139
High protein food- and feedstuffs prodn - 32933V/18
MYKO- 02.11.74 MYKOFARM GES D16 =IT 1048-021
Mushroom cultivation container - 81692W/50

*NAAR- 03.07.79 NAARDEN & SHELL ARO D25 E14 *NL 7905-175
P-tert. butyl-alpha, alpha-di:methyl:di:hydro:cin amaldehyde 07019D/05
NAEQ- 10.05.79 NAT EQUIPMENT CORP D14 =US 4244-979
Food oven with controlled atmosphere - 86324C/48
NATR 11.07.72 NATIONAL RES DEV CORP D22 =DS 2335-329
Medical isolation tent - 25402V/14
*NATR 31.05.78 NATIONAL RES DEV CORP D15 H03 J01 *GB 1583-730
Cyclone separator for sepg. oil from sea water - 06355D/05
NATT 29.05.79 NAT STARCH & CHEM CORP D17 (D13) =GB 2052-541
Modified tapioca starch forming gel in cold water - 67780C/39
NATT 29.05.79 NAT STARCH & CHEM CORP D17 (D13) =SE 8002-609
Modified tapioca starch forming gel in cold water - 67780C/39
NATY 18.10.74 NABISCO INC D13 =J8 1000-013
Textuised vegetable proteinaceous flakes - 34323X/19
*NELH- 13.03.79 NELHAM R & ASSOC A92 D11 *US 4244-158
Packaging ice cream blocks with wafers - 07494D/05
*NELS/ 02.07.79 NELSON C L A96 D22 *EP --22-308
Prosthesis cement spacer - 06053D/05
*NEME/ 15.09.79 NEMETZ H D16 *BE -885-229
Mfg. compost by decomposing organic waste in mechanised silo 05770D/05
NEPT- 26.10.76 NEPTUNE MICROFLOC I D15 =CA 1092-033
Sludge suction pump for cleaning tank bottom - 32380A/18
NEST 06.11.78 SOC PROD NESTLE SA B02 D13 =ZA 7905-367
Extracting caffeine from supercritical carbon di:oxide phase - 36852C/2
NEST 06.11.78 SOC PROD NESTLE SA D13 =ZA 7905-368
Decaffeination of coffee or tea extracts - 36853C/21
NEST 04.04.79 SOC PROD NESTLE SA D13 =FR 2452-875
Cheese prepn. comprising coagulate and whey transfer - 77308C/44
*NETO/ 03.07.79 NETO D G D17 *BR 7904-272
Sugar cane rotary press - D/05

PROC

*PROC 12.07.79 PROCTER & GAMBLE CO D25 E17 *US 4244-884
Continuous prepn. of peroxy:carboxylic acids - 07660D/05
PROM- 06.02.79 PRO-MARK COM D13 =US 4244-983
Low calorie imitation cream cheese - 64784C/37
PURD 28.02.79 PURDUE RESEARCH FOUNDATI A89 D16 J01 S03 =US 4245-005
Chromatographic carrier particles with thin surface coating - 86573C/49

*RAIT/ 17.10.78 RAITER R D15 J01 *ZA 7805-821
Regeneration of strong cation exchange resins - 07771D/05
REGC 11.08.78 UNIV OF CALIFORNIA B04 D16 =ZA 7904-172
Deoxyribonucleic acid transfer vector - 29777C/17
*REGC 12.09.79 UNIV OF CALIFORNIA B04 D16 *BE -885-196
DNA transfer vectors contg. codes for human insulin precursors - 05762D/05
RESE 20.07.72 RESEARCH CORP D13 E19 =IT 1048-123
Improving heat resistance of rice grains - 10680V/06
RGBL- 19.12.78 RGB LAB INC A26 C03 D13 (A96 A97 C04) =ZA 7906-886
Mineral contg. polymeric compsns. with dispersibility in water - 46674C/27
RHON 31.07.72 RHONE PROGIL D25 E34 =IT 1048-264
Sodium polyphosphate prepn - 12750V/07
RHON 01.12.72 RHONE POULENC SA A96 D22 F01 =IT 1048-160
Bio-reabsorbable polysuccinate sutures and prostheses - 44011V/24
RHON 02.04.79 RHONE-POULENC INDUSTRIES D23 E16 =FR 2452-921
Perfumery use of N,N-di:ethyl 2-ethyl-hexane:amide - 77561C/44
RHON 05.04.79 RHONE-POULENC INDUSTRIES A97 C03 D16 =FR 2453-215
Microorganisms included in crosslinked polysaccharide gel - 77546C/44
RHON 18.04.79 RHONE-POULENC INDUSTRIES B04 D16 =FI 8001-251
Immunostimulant 41200RP - 77067C/44
RICH 17.10.78 RICHARDSON-MERRELL INC B05 D21 E12 #CA 1092-032
Sodium ricinoleate mouth wash compsns. - 01818B/01
*RICH- 28.01.77 RICH PRODUCTS CORP D13 *US 4244-976
Intermediate moisture sugared egg yolk compsn. - 07702D/05
*RICH- 28.01.77 RICH PRODUCTS CORP D13 *US 4244-977
Intermediate moisture microbiologically stable ice cream - 07703D/05
RICH- 18.05.79 RICHARDS OF ROCKFOR D15 =ZA 7903-647
Aeration appts. with axial flow impeller - 03588D/03
RICT 21.03.79 RICHTER GEDEON VEGY D15 J08 =GB 2052-705
Dryer-granulator for heat-sensitive organic materials e.g. biological - 71595C/41
*RIJP/ 02.07.79 RIJPKEMA J M D12 *BE -884-120
Prodn. of rehydratable meat prod. from pork rind - 05692D/05
RIJP/ 02.07.79 RIJPKEMA J J M D12 =NL 7905-147
Prodn. of rehydratable meat prod. from pork rind - 05692D/05
RIKA 06.06.66 RIKAGAKU KENKYUSHO B04 C03 D16 =IT 1048-383
Polyoxins D,E,F,G and H - 00992H/00
*RIKV 10.05.79 RIKEN VITAMIN CO LTD D13 *J5 5150-871
Imitation topping cream prepn. - 06611D/05
*RIKV 11.05.79 RIKEN VITAMIN OIL KK D13 *J5 5150-845
Powdered fat prepn. - 06604D/05
RNTK 31.10.74 RENTOKIL LTD D22 E36 =IT 1048-374
Sterilising compsn with delayed sulphur dioxide generation - 36409X/20
ROHM 30.09.76 ROHM & HAAS CO A91 D23 =CA 1092-149
Removing organic Lewis acids from water immiscible liquids - 25224A/14
ROHM 04.12.78 ROHM & HAAS CO A94 D22 F04 (A18 A96) =ZA 7906-492
Nonwoven hydrophilic fibrous prod. for diapers - 41961C/24
ROHM 04.12.78 ROHM & HAAS CO A94 D22 F04 (A18 A96) =ZA 7906-531
Nonwoven hydrophobic fabric for diaper mfr. - 41962C/24
*ROHM 10.07.79 ROHM & HAAS CO B05 C03 D22 E16 (B03 C02 E13) *EP --22-653
N-Alkenyl or- alkynyl-substd. urea derivs. - 06222D/05
*ROLL/ 02.02.79 ROLLENHAGEN J T A83 D22 F07 *US 4244-367
Protective panty for incontinent persons - 07525D/05
ROSS/ 24.04.79 ROSSI J C03 D13 =FI 7901-322
Detoxicating and/or taste-improving plant seed oil feedstuff treatment - 81117C/46
RUHR 28.05.79 RUHRCHEMIE AG D23 E15 =SE 8003-798
2-Methylene-butanal derivs., useful as perfumes - 88533C/50
*RUHR 13.07.79 RUHRCHEMIE AG D23 E15 *BE -884-206
3- and 4-Formyl-tri:cyclo-(5,2,1,0-2,6)-decene-3 prodn. - 05713D/05
RZVE- 12.04.78 R & Z VERMOGENSVERW A97 B04 D16 J04 =DS 2815-758
Antigenic peptide complexes - 77558B/43

SAGA 03.04.79 SAGAMI CHEM RES CENTRE B05 D16 =FR 2453-137
Di:peptide prodn. in presence of immobilised protease - 73469C/42
SAIW 28.05.75 SANDO IRON WORKS KK A35 D15 F06 G03 (A14 A87 A97 F09) =J8 1000-111
Removing polyvinyl alcohol from waste water with boric acid or borax - 77598X/42
SAKA 15.06.79 OTSUKA PHARM KK B02 D16 =GB 2052-502
Cephalosporin antibiotic cephamycin C microbiological prodn. - 02266D/03
SALA/ 08.06.79 SALA F D13 T05 =BR 8003-533
Indicator of transitory defrosting of frozen food etc. - 73516C/42
*SALZ 03.07.79 SALZGITTER MASCH D17 E12 *DE 2926-750
Tri:calcium saccharate from molasses - 05861D/05

*SAMW/ 06.10.77 SAMWAYS B A96 D22 *GB 1583-367
Method of forming wound covering - 06332D/05
*SANN 19.06.79 SANYO CHEM IND LTD. A97 D15 G04 *DE 3022-4
Boiler scale removal without stopping plant operation - 05927D/
SANO 27.06.79 SANDOZ AG A97 D25 E19 (D21) =DE 3022-816
Detergent compsns. pref. in paste form - 02023D/03
SANY 26.11.73 SANKYO KK B02 C02 D13 =DS 2455-884
7-Beta-Acylamino-7 alpha-methoxy-cephalosporins - 38027W/2
SANY 11.05.79 SANKYO KK B03 D16 =J5 5150-898
Monacoline K prepd. by cultivation of Monascus strains - 69578C
*SAOC 13.07.79 SANRAKU OCEAN B03 D16 *EP --22-574
Rhodomycin Gp. antibiotics from anthracyclinone(s) - 06181D/05
SASA- 22.02.74 SASAKURA ENG CO D15 J01 =DS 2507-209
Desalination of sea water in continuous multistage evap
46121W/28
SCHC 08.09.75 SCHERICO LTD A96 D21 E14 =CA 1092-031
Aq. sub-protective compsn. - 18410Y/11
SCHM- 07.04.79 SCHMIDDING GMBH D23 E17 =FR 2452-947
Deodorising and/or deacidifying high-boiling organic liq. - 77177
*SCHR- 30.06.79 ERICH SCHROTER OHG D12 *DE 2926-496
Food drying and smoking plant - 05845D/05
SCHR/ 27.11.78 SCHRODER J G C03 D22 E37 F09 #ZA 7906-418
Fungicidal and insecticidal treatment of wood - 52055C/30
SCHU/ 07.04.79 SCHURCH E D15 J02 =FR 2452-960
Radial injector for feeding gas, esp. air, into liquids - 56947C/33
SCOP 31.10.74 SCOTT PAPER CO A96 D22 F04 =IT 1048-324
Multilayer disposable diaper with absorbent core - 78391W/47
SEAR 04.05.70 SEARLE G D & CO B05 D13 E14 =IT 1048-252
Sweetening compn contg l-aspartyl-l-phenyl - 82782R/44
SEAR 02.04.79 SEARLE G D & CO B04 D16 =FR 2452-924
Synthetic influenza gene prodn. - 73458C/42
SEAR 27.05.80 SEARLE G D & CO B04 D16 =GB 2052-516
Plasmids useful as vectors for eucaryotic DNA - 88368C/50
SEIY- 13.06.79 SEIYAKU KK A97 D16 E17 =BR 8003-540
Conc. ethanol prepn. by sugar fermentation - 00290D/01
SEJJ 25.09.78 JUJO PAPER MFG KK B05 D16 =US 4245-048
Coenzyme Q-10 prodn. - 35737C/20
*SEPI/ 12.04.78 SEPITYI A E D18 *SU -735-636
Prodn. of vegetable source tanning agents - 07096D/05
*SHAR/ 18.07.78 SHARETSKII A N A97 B04 D16 *SU -737-449
Processing agar gel for use in immunology - 07357D/05
SHEL 08.11.72 SHELL INT RES MIJ BV C03 D16 =IT 1048-154
Insecticidal virus prepns - 36488V/20
*SHES/ 11.05.76 SHESTERENKO A F D16 *SU -737-455
Toxin producing bacteria growth unit - 07363D/05
*SHIA 12.05.79 SHINKO KAGAKU KOGYO A25 C03 D22 (A94) *J5 5034
Water-retaining polyurethane foam - 06636D/05
*SHOS 25.06.79 SHOWA SANGYO KK D23 *DE 3023-589
Animal or plant oil refining - 05945D/05
SHOS 25.06.79 SHOWA SANGYO KK D23 =NL 8003-649
Animal or plant oil refining - 05945D/05
SIAC- 05.04.79 SIAC SOC ANHYDRIDE D13 J02 =FR 2452-963
Prodn. of atomised products from liq. phase - 75322C/43
*SIDA= 29.12.77 SIBE DAIRY IND RES D13 *SU -736-934
Dried milk prodn. appts. - 07172D/05
SIMC 15.04.78 SIMONCARVES LTD C03 D15 (D13) =US 4244-818
Removal of metallic impurities from sewage sludge - 79430B/44
*SIMC 23.06.79 SIMON-ROSEDOWNS LTD D23 *GB 2052-551
Extn. of oil from oil rich seeds - 06400D/05
SIRE/ 30.11.78 SIREN M J A88 D18 J01 #ZA 7906-493
Filter contg. active material and carbohydrate polymer - 43680C/25
SMHL 20.07.77 SIMON HARTLEY LTD D15 =GB 1583-495
Overflows and edges for sludge decantation tanks - 31988B/17
*SNOW 14.05.79 SNOW BRAND MILK PRODUCTS D13 E13 *J5 5151-5
Thiazole deriv. with milk-like flavour - 06748D/05
SNOW 08.06.79 SNOW BRAND MILK PRODUCTS A97 D13 #GB 20241
Small ice piece-contg. ice cream mfr. - 60197B/33
SNOW 26.06.79 SNOW BRAND MILK PRODUCTS D13 T06 X25 =2052-352
Formation of spherical portions from extruded sections e.g. of che
02247D/03
SNOW 26.06.79 SNOW BRAND MILK PRODUCTS D13 T06 X25 =8003-686
Formation of spherical portions from extruded sections e.g. of che
02247D/03
SOMA- 09.01.76 SOMAT CORP D15 J01 =DS 2700-542
Sieve dewaterer with screw conveyor - 67146Y/38
*SORI- 31.12.73 SORIN SOC RICERCHE D16 *IT 1048-265
Storage stable microbial product prepn. - D/05
SOSH 26.04.77 SODA KORYO KK D23 E17 (E13 E14) =US 4244-873
Omega-hydroxy fatty acid prodn. - 82515A/46
*SPIL- 18.08.76 SPILLERS LTD C03 D13 *GB 1583-644
Pet foods based on textured vegetable protein - 06349D/05
STAB- 29.12.78 STABLEX AG D15 M11 =ZA 7906-949
Chemical pretreatment of hazardous waste in containers - 57267C/3
STAD 30.10.74 STANDARD OIL CO (IND) D13 (D16) =IT 1048-032
Single celled protein material with reduced purine content - 28270X/

UNIL

UNIL 01.11.76 UNILEVER LTD D25 E17 (E36) =CA 1092-036
Storage stabilised liq. enzymatic detergents - 33414A/19
UNIL 01.11.76 UNILEVER LTD D25 E19 (E36) =CA 1092-037
Storage stabilised liq. enzymatic detergents - 33415A/19
UNIL 11.05.78 UNILEVER NV D25 (D24) =ZA 7902-276
Prepn. of spray dried soap contg. washing powders - 82563B/46
UNIL 16.05.78 UNILEVER NV A97 D25 =ZA 7902-334
Deodorant compsn. contg. abrasive, bleach, wax or polymer carrier - 86309B/48
UNIL 26.06.78 LEVER BROTHERS CO C03 D13 =US 4244-973
Detoxified rapeseed protein concentrate prodn. - 03861C/03
UNIL 06.04.79 UNILEVER NV D25 E11 =FR 2453-212
Bleaching compsns. contg. peroxy cpd. and activator - 75321C/43
*UNIL 06.07.79 UNILEVER NV D25 E16 *BE -884-208
Particulate bleaching compsns., esp. washing powders - 05715D/05
*UNIV- 01.10.76 UNIVERSAL ELECTRIC D15 *CA 1092-260
Submersible sewage aerator with rotating impeller - 05784D/05
UNIX 27.02.76 UNISEARCH LTD D15 =US 4244-815
Aerobic biological purification of fluid wastes - 63354Y/36
*UNVO 08.03.77 UOP INC C04 D15 *US 4244-287
Two stage mechanical dewatering of sewage sludge - 07511D/05
UPJO 17.04.74 UPJOHN CO B03 D16 =SU -736-875
Antibiotic U-43795 and its derivs - 74374W/45
USAT 11.09.79 US DEPT OF ENERGY D16 E17 =ZA 7907-047
Thermoanaerobacter ethanolicus and clostridium thermocellum cultures - 53349C/31
USBO 05.06.79 US BORAX & CHEM CORP D25 E37 (E14) =NO 8001-660
Dry carpet cleaning and deodorising compsn. - 02450D/03
USBO 05.06.79 US BORAX & CHEM CORP D25 E37 (E14) =US 4244-834
Dry carpet cleaning and deodorising compsn. - 02450D/03
USST 08.07.76 USS ENG & CONSUL IN D15 E36 H09 J01 (E35) =CA 1092-051
Removing acid gases and ammonia from solns. - 06690A/04
USST 08.07.76 USS ENG & CONSUL IN D15 E35 H09 J01 (E36) =CA 1092-052
Acid gas and ammonia separation from aq. solns. - 06691A/04
USSU 04.06.79 US SURGICAL CORP A96 D22 =BR 8003-458
Surgical clamping staple rods - 90473C/51
USSU 04.06.79 US SURGICAL CORP A96 D22 =GB 2052-431
Surgical clamping staple rods - 90473C/51
*USUP= 26.12.77 UKR SUPPLY MACH CON D11 *SU -736-928
Bakery installation for making/up trays and containers - 07168D/05
*UVET= 11.07.75 UKR VETERINARY EXPT D16 *SU -737-457
Animal tissue cell culturing - 07365D/05
*UVET= 10.04.78 UKR VETERINARY INST D16 *SU -737-454
Purificn. of agar-agar for microbiological use - 07362D/05
*UVFO- 21.02.78 UNIVERSAL FOODS CO D13 *US 4244-286
Appts. for salted cheese curd loaf prepn. - 07510D/05
UYLI- 10.10.78 UNIVERSITY OF LIVERPOOL A96 D22 S05 X25 =ZA 7905-323
Device for contacting living tissue - 36935C/21
*UYMO- 12.06.79 MONTANA STATE UNIV C03 D13 (D16) *EP --22-619
Processing waxy barley to protein prods. - 06205D/05

VAES 27.12.72 VASSEN SCHIEMAKER D12 =IT 1048-419
Preservative treatment of meat before nitrite treatment - 51345V/28
*VASS/ 04.04.79 VASSEUR J D22 *FR 2452-878
Device for sustained release of active ingredients - 06278D/05
*VEMD/ 03.07.79 VON DER EMDE W D15 *DE 3024-997
Biological effluent cleaning plant - 05974D/05
VHAG/ 09.03.77 VON HAGENS G A96 D22 (D16) =US 4244-992
Preserving human, animal or plant specimens - 44137A/25
VISA 22.10.74 VISKASE LTD A97 D12 =IT 1048-067
Sausage skin removal - 35347X/19
*VOSG/ 05.04.79 VOSGANIANTZ J J D23 (D22) *FR 2452-920
Solidified perfume prods. for body application or for toilets - 06285D/05
*VOTE= 25.05.77 VORON TECH INST D17 *SU -737-458
Progressive pre-defecation of raw sugar beet juice - 07366D/05
*VOTE= 25.07.77 VORON TECH INST D16 *SU -737-456
Fungal strain Rhizopus tritici T1 - 07364D/05
*VOTE= 22.11.77 VORON TECH INST B04 D16 *SU -737-440
Aq. nutrient for baker's yeast growing - 07349D/05
VTOP/ 21.05.79 VAN DEN TOP H D16 #DK 7902-083
Mushroom harvesting machine - 40908B/22

WARR/ 29.12.76 WARREN W H D13 =CA 1091-980
Egg breaking, yolk and white sepg. machine - 52818A/29
*WATE= 22.12.77 WATER SUPPLY INST D15 *SU -737-360
Purification of industrial effluents for reuse or discharge - 07272D/05
WITC 14.08.74 WITCO CHEMICAL CORP D25 E19 =FR 2453-146
New sulphosuccinic ester surfactants - 00117X/01
WITC 14.08.74 WITCO CHEMICAL CORP D25 E19 =FR 2453-147
New sulphosuccinic ester surfactants - 00117X/01
WMAC- 17.08.78 WESTERN STATES MACH D17 J01 =US 4244-823
Centrifuge with closable outlet in basket bottom - 05487C/04

*YALO= 04.04.77 YALOVENY AGRIC IND D16 *SU -737-445
Fermented mash distiller - 07353D/05
*YAMA/ 10.05.79 YAMADA S D13 *J5 5150-876
Taste-improving additive for foods, etc. - 06613D/05
YAMS 16.01.76 YAMASA SHOYU KK D16 =J8 1000-034
Fixed enzyme compsns. prodn. - 62218Y/35
YAWA 11.06.75 NIPPON STEEL CORP A97 D15 J01 M24 =J8 1000-
Removal of dust from waste gas treated water - 08443Y/05
YAWA 18.06.75 NIPPON STEEL CORP D15 E14 M11 =J8 1000-118
Treatment of plating waste liquor contg. phenol sulphonic
10365Y/06
*YEDA 26.01.78 YEDA RES & DEV CO LTD D16 *US 4245-042
Appts. for harvesting cultured cells - 07728D/05
*YOKO/ 14.05.79 YOKOYAMA R B05 D21 E19 *J5 5151-507
Cosmetic for removing freckles - 06716D/05
*YOKO/ 14.05.79 YOKOYAMA R D21 *J5 5151-508
Hair tonic contg. chlorinated peppermint oil - 06717D/05
*YOKO/ 14.05.79 YOKOYAMA R B04 D22 *J5 5151-514
Iodinated peppermint oil pharmaceuticals - 06720D/05
*YOSH 11.05.79 YOSHITOMI PHARM IND KK C03 D22 (D15) *J5 51
502
Slime prevention agent - 06713D/05
*YOSH 16.05.79 YOSHITOMI PHARM IND KK C03 D22 E14 F09 (C01 E1
*J5 5151-501
Wood antiseptic compsn. - 06712D/05

ZETA- 21.05.79 ZETA ESPACIAL SA D13 =DK 8001-813
Mfr. of gasified sweets from a sugar syrup - 64232C/37

ABD
849 Q00
058 Q01
026 Q01
599 Q01
377 D05

BCD
-243 Q00+
-957 R04
-191 Q01
-739 Q01
-390 Q01
-840 Q01
-954 R04
-056 R11
-117 R29
-041 S32
-104 T22
-506 T48
-768 X52
-383 D05+

R

DF
-789 R15+
-300 S41+
-092 X16+
-660 S36
-760 X02+
-255 S42
-741 T38
-839 T46
-840 T46
-738 U23
-737 U23
-384 D05+

DE
-713 R17+
-131 R35
-624 S41
-507 T08
-902 T20
-096 T20
-466 T22
-465 T22
-370 T37
-635 U17
-573 U39
-699 W45
-380 D05+

DE
-869 R22+
-136 S05
-690 W38+
-817 X33+
-615 X44+
-556 Y17+
-934 B23+
-381 D05+

D
-755 R26
-973 T16
-431 D05

BDE
-131 R44+
-712 R45
-003 S16
-504 S22
-079 S26
-995 S49
-381 V27
-515 W21
-499 B39
-978 B48
-252 D05+

S

AD
-075 S12
-690 S37
-120 X11
-251 D05

56984-S DE
BE -763-418 S35
NL 7102-362 S37
J4 6003-273 S44
DE 2108-556 S50
FR 2078-976 T05
ZA 7101-093 T41
GB 1292-572 T41
US 3821-421 V28
CA -960-081 W03
CH -577-275 X34
NL -155-181 A05
DS 2108-556 A18
J7 9012-550 B24
IT 1048-386 D05

80638-S AD
DE 2126-419 S51
J4 7000-247 T04
ZA 7102-889 T32
FR 2108-189 T33
US 3709-866 U03
ZA 7202-434 U06
GB 1357-416 V25
J7 6002-235 X08
CA -983-190 X08
CH -575-754 X25
IT 1048-387 D05

T

02883-T DE
BE -769-168 T02
FR 2144-940 U17
CH -546-039 V12
IT 1048-389 D05+

10109-T D
DE 2134-573 T07
NL 7110-307 T07
BE -770-491 T07
J4 7003-717 T10
FR 2103-323 T28
CA -910-117 T40
GB 1314-917 U17
US 3754-926 U37
GB 1339-199 U48
J4 9020-352 V17
IT 1048-390 D05

16038-T AD
US 3639-572 T10+
IT 1048-382 D05

16667-T DE
J7 2004-487 T10
IT 1048-378 D05

40494-T BCD
BE -776-317 T25+
NL 7116-869 T26
J4 7014-389 T34
DE 2161-164 T40
FR 2117-530 T45
GB 1370-892 V42+
CH -560-248 W17+
J5 0081-874 W35+
IL --38-272 W41+
US 3989-594 X46+
J7 6042-033 X50
CA 1000-629 X51+
J8 0001-038 C06+
DS 2161-164 C49+
IT 1048-102 D05+

47953-T D
NL 7200-156 T30
BE -777-783 T30
J4 7013-607 T32
DE 2200-461 T34
ZA 7200-057 U38
CA -956-503 V45
GB 1382-573 W06
CH -567-369 W46
AT 7200-078 X46
NL -163-259 C13
US 4214-012 C32
IT 1048-393 D05

49326-T DE
DE 2201-670 T31
NL 7200-096 T32
BE -778-045 T33
FR 2122-442 T51
GB 1329-521 U37
US 3758-268 U38
CH -551-199 V36
US 3966-722 X28+
CA -998-670 X45
IT 1048-396 D05

55353-T DE
DE 2204-865 T35
NL 7201-452 T35
BE -779-007 T35
J4 7017-810 T39
FR 2124-448 U01
ZA 7200-683 U48
GB 1374-983 V47
CA -959-371 W01
AT 7200-808 W19
CH -567-570 W46
DS 2204-865 D05

59065-T DE
BE -780-048 T37
DE 2209-200 T40
NL 7203-455 T41
FR 2130-106 U06
US 3726-814 U17
ZA 7200-922 U43
GB 1380-107 W02
AT 7201-708 W35
CA -973-310 W37
CH -571-061 X07
DS 2209-200 D05

59765-T D
DE 2164-912 T38
FR 2120-884 T49
J7 3044-865 V01
GB 1379-406 W01
US 3899-480 W34
CA -976-801 W46
DS 2164-912 D05

73247-T D
NL 7205-466 T46
DE 2219-639 T47
FR 2135-169 U09
US 3799-806 V14
GB 1361-674 V31
CA -959-484 W01
DS 2219-639 Y43
IT 1048-437 D05

74398-T CD
DE 2146-928 T47
FR 2134-967 U09
DS 2146-928 V09
GB 1370-665 V42
CA -959-331 W01
US 3857-946 W02
J7 5024-862 W37
IT 1048-433 D05

74720-T DE
NL 7203-392 T47
BE -781-338 T47
DE 2213-175 U03
FR 2134-369 U09
GB 1333-527 U41
US 3773-523 U48
CH -563-723 W34
CA -984-659 X12
DS 2213-175 A18
IT 1048-253 D05

79869-T ABD
BE -784-460 T50
NL 7207-852 U01
DE 2228-338 U03
FR 2140-658 U13
GB 1351-903 V18
CA -950-829 V30
IT 1048-254 D05

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00318-U ABDE
DE 2228-934 U01
NL 7208-318 U01
BE -784-897 U05
FR 2141-853 U14
ZA 7203-813 V06
GB 1354-990 V22
US 3830-919 V35
CH -573-249 X19
CA -991-548 X28
IT 1048-255 D05

01754-U D
DE 2230-433 U02+
NL 7208-723 U03
BE -785-341 U05
FR 2143-431 U15
US 3769-032 U46
GB 1339-417 U49
CA -966-006 W18+
AT 7205-435 X03+
CH -571-314 X12+
IT 1048-256 D05+

04416-U D
NL 7209-016 U04
BE -785-534 U05
DE 2231-314 U05
FR 2143-832 U16
US 3798-179 V13
GB 1383-427 W07
CA -969-441 W27
IT 1048-257 D05

12416-U D
BE -788-844 U09
NL 7212-711 U15
DE 2246-221 U21
ZA 7206-189 U25
FR 2154-031 U27
J4 8056-896 U42
DD -102-913 V13
US 3861-400 W05
GB 1391-614 W17
CA -977-233 W47
CS 7206-480 W48
CH -568-725 X02
J7 6009-037 X16
RO --62-793 A21
IT 1048-261 D05

13937-U D
BE -789-477 U10+
NL 7213-183 U16
DE 2247-245 U16
J4 8040-947 U31
FR 2156-620 U33
US 3840-657 V42+
ZA 7206-372 V22
AT 7208-379 W31
GB 1409-603 W41+
CA -989-739 X24+
IT 1048-262 D05+

15491-U D
BE -789-939 U11
ZA 7206-531 U27
US 3800-805 V15
SE 7302-350 V42
FR 2218-725 V50
GB 1378-145 V51
CA -964-545 W14
CH -563-733 W34
IT 1048-112 D05+

15502-U D
BE -790-017 U11
NL 7211-931 U19
DE 2251-339 U19
FR 2158-879 U34
GB 1346-124 V06
US 3821-959 V29
CA -959-368 W01
CH -571-831 X12
IT 1048-438 D05

18244-U BD
BE -788-788 U13+
NL 7212-424 U14
DE 2244-830 U19
FR 2152-935 U26
J4 8096-735 V08+
DD -102-914 V13+
ZA 7206-247 V25
GB 1408-036 W40+
AT 7207-667 X03
CA -986-413 X16+
CH -581-467 X52+
RO --67-290 C50+
IT 1048-260 D05+

32542-U DE
DE 2257-050 U23
NL 7215-842 U24
BE -791-813 U24
FR 2160-966 U38
GB 1385-400 W09
CH -564-318 W34
US 3906-119 W39
DS 2257-050 X18
US 3966-989 X28
NL -152-023 Y07
CA 1026-620 A10
IT 1048-263 D05

40305-U DEF
DE 2262-633 U29
NL 7217-561 U29
FR 2167-158 U44
J4 8074-528 U51
GB 1370-390 V42
US 3843-633 V44
SU -427-520 W50
CH -569-128 X02
CH -573-961 X19
CH -573-930 X19
CA 1017-336 Y39
DS 2262-633 D05

41055-U D
BE -793-930 U29
DE 2300-443 U31
NL 7300-433 U31
FR 2167-931 U45
US 3819-825 V27
J4 9085-246 V42
J4 9085-247 V42
GB 1373-742 V46
CH -581-472 X52
IT 1048-406 D05

49533-U AD
NL 7301-771 U35
BE -795-203 U35
DE 2304-782 U36
FR 2171-800 U49
J4 8091-299 V06
DD -105-120 V28
ZA 7300-426 V40
CA -955-819 V43
GB 1386-943 W11
CH -575-727 X25
SU -605-525 B13
IT 1048-108 D05

52044-U DE
BE -796-530 U36
DE 2311-828 U39
NL 7303-340 U39
FR 2177-798 V01
ZA 7301-681 V02
J4 8103-799 V10
DD -104-098 V15
US 3870-810 W12
AT 7500-055 Y18
IT 1048-405 D05

58649-U AD
DE 2313-191 U40
NL 7303-613 U40
BE -796-486 U40
FR 2176-440 U52
J4 9000-499 V11
GB 1362-613 V32
US 3880-172 W19
CA -992-422 X30
IT 1048-113 D05

61490-U DE
BE -798-812 U41
NL 7305-938 U47
DE 2221-277 U48
FR 2183-070 V06
GB 1403-468 W34
DS 2221-277 D05

64260-U DE
DE 2316-456 U43
BE -797-835 U43
NL 7304-828 U43
FR 2179-162 V02
J4 9007-207 V13
GB 1392-851 W18
US 3970-689 X31
CA 1005-070 Y08
CH -590-333 Y36
US 4053-656 Y42+
IT 1048-117 D05

66585-U DE
NL 7305-105 U44
BE -798-238 U44
DE 2318-763 U46
FR 2180-124 V05
J4 9014-667 V15
US 3853-996 V52
ZA 7302-523 W02
AT 7303-293 W15
GB 1420-077 X02
J7 6009-383 X17
CA -987-166 X18
CH -577-796 X34
CA 1008-726 Y18
NL -156-898 A26
IT 1048-421 D05
DS 2318-763 D05

69753-U D
NL 7305-989 U46
FR 2182-250 V05
DE 2321-638 V05
GB 1391-738 W17
DS 2321-638 D05

74980-U D
NL 7306-716 U49+
BE -799-773 U49
DE 2325-133 U52
FR 2185-018 V08+
US 3944-680 X13
GB 1440-182 X26+
NL -156-901 A26+
DS 2325-133 D05

74997-U AD
NL 7306-769 U49
BE -799-545 U49
DE 2324-797 U50
FR 2184-890 V08
J4 9054-551 V31
GB 1401-089 W30
AT 7304-270 X07
CH -572-336 X15
US 3958-581 X23
CA 1001-076 X52
DS 2324-797 C40
IT 1048-407 D05

77827-U AD
DE 2229-702 U51
NL 7209-059 U52
BE -800-765 V01
FR 2187-278 V11
J4 9051-328 V29
CH -564-340 W34
GB 1431-211 X15
CA -993-588 X32
NL -150-148 X33
AT 7305-072 X20
J7 8014-094 A23
IT 1048-121 D05

V

02837-V AD
NL 7308-583 V02
BE -801-048 V03
BE -801-049 V03
DE 2330-956 V03
DE 2330-957 V03
FR 2189-434 V12
FR 2189-004 V12
J4 9054-553 V31
J4 9054-552 V31
GB 1402-970 W33
GB 1402-969 W33
AT 7305-417 X10
US 3946-749 X15
CH -577-315 X34
CH -578-348 X39
AT 7305-416 X40
US 3990-459 X47
AT 7509-479 Y01
CA 1002-453 Y03
J5 2086-491 Y35
FR 2339-630 Y46
CA 1024-688 A06
J7 8008-756 A17
IT 1048-408 D05

03862-V ADE
BE -801-052 V03
DE 2331-009 V04
FR 2189-006 V12
GB 1397-500 W24
US 3955-918 X21
CH -578-870 X39
CH -589-698 Y34
CA 1020-869 Y48
US 4153-065 B21
CA 1054-148 B22
IT 1048-425 D05

05835-V CD
DE 2231-198 V04
DS 2231-198 D05

05999-V BCD
DE 2331-891 V04
FR 2189-369 V12
J4 9020-115 V24
US 3830-832 V35
GB 1374-558 V47
CA 1008-877 Y18
J7 7033-608 Y38
IT 1048-125 D05

06047-V D
DE 2333-701 V04
FR 2190-377 V13
US 3857-975 W02
GB 1431-354 X15
CA 1007-512 Y15
J4 9026-465 B49
J7 9037-217 B49
IT 1048-409 D05

07221-V CD
BE -802-466 V05
NL 7310-141 V06
DE 2235-539 V07
FR 2193-785 V17
J4 9044-551 V26
GB 1421-417 X04
J7 6016-703 X25
CH -585-157 Y16
CA 1016-452 Y37
IT 1048-420 D05

07621-V AD
DE 2333-574 V05
US 3851-043 V50
CA -988-678 X22
J4 9043-486 D05
J8 1000-063 D05

09353-V D
BE -805-207 V06
NL 7313-171 V15
DE 2348-004 V19
FR 2199-945 V25
ZA 7307-306 V40
J4 9085-275 V42
US 3906-116 W39
AT 7308-262 X24
GB 1451-448 X41
CH -591-816 Y41
CA 1029-595 A18
CS 7306-564 C32+
IT 1048-423 D05

10680-V DE
NL 7307-926 V06
DE 2334-944 V08
FR 2196-758 V21
J4 9042-843 V26
US 3835-225 V38
GB 1375-515 V48
J7 5039-131 X03
CA -986-356 X16
NL -156-903 A26
DS 2334-944 C26
IT 1048-123 D05

11853-V D
DE 2337-878 V07
FR 2194-411 V18
J4 9132-248 W08
ZA 7304-996 W18
CA -985-175 X13
GB 1429-774 X13
IT 1048-410 D05

12750-V DE
NL 7310-452 V07+
BE -802-993 V07+
DE 2338-507 V09+
J4 9044-999 V26+
FR 2193-778 V17
ZA 7305-141 V35
FR 2233-281 W13+
GB 1414-369 W47+
US 3993-734 X49+
IL --42-828 Y07+
CA 1020-328 Y47+
J7 9031-480 B44+
IT 1048-264 D05+

13875-V BD
DE 2338-031 V08
FR 2194-440 V18
J4 9050-122 V29
GB 1386-920 W11
US 3932-607 X04
CH -583-037 Y02
IT 1048-132 D05

15474-V BDE
BE -803-317 V09
DE 2339-661 V09
NL 7310-916 V10
FR 2195-630 V19
J4 9055-880 V31
ZA 7305-315 W18
AT 7306-917 W35
US 3917-613 W47
GB 1436-329 X21
CA 1030-965 A21
J7 8027-780 A36
CH -604-559 A41
IT 1048-413 D05

15527-V DE
BE -803-712 V09
NL 7310-581 V10
DE 2241-015 V10
FR 2196-997 V21
ZA 7305-717 V22
GB 1394-146 W20
AR -201-288 W40
US 3909-190 W41
IT 1048-134 D05

19645-V D
DE 2241-707 V11
FR 2196-786 V21
IT 1048-133 D05

24911-V DE
BE -805-203 V14
NL 7313-112 V15
DE 2347-928 V16
FR 2199-971 V25
J4 9069-846 V36
GB 1387-520 W12
SE 7608-931 Y12
CH -588-282 Y27
CA 1015-371 Y34
US 4061-730 Y50
CH -605-644 A48
IT 1048-424 D05

25368-V DE
DE 2348-222 V14
FR 2199-972 V25
J4 9050-141 V41
US 3903-257 W37
J8 0016-403 C22
IT 1048-142 D05

25402-V D
FR 2191-944 V14
US 3875-927 W16
GB 1443-414 X30
DS 2335-329 D05

32933-V CD
DE 2344-317 V18+
FR 2197-524 V22+
J4 9066-879 V35
CH -566-108 W43
GB 1414-529 W47+
CH -572-710 X15
CH -572-711 X15
CA -992-015 X29+
US 3968-257 X29+
DS 2344-317 A32+
J8 0022-079 C28+
IT 1048-139 D05+

35047-V D
DE 2353-970 V19+
BE -806-730 V20+
NL 7314-856 V20+
FR 2204-366 V35+
GB 1385-600 W09+
J5 0005-406 W12+
CA 1023-611 A04+
IT 1048-149 D05+

36447-V D
US 3808-329 V19
DE 2356-475 V21
BE -807-232 V22
NL 7315-427 V22
FR 2206-080 V37

36447-V

J5	0000-005	W10
GB	1393-639	W19
CA	1017-251	Y39
IT	1048-157	D05

36488-V CD

BE	-806-708	V20
NL	7315-167	V21
DE	2355-354	V24
FR	2205-572	V36
J4	9075-779	V39
ZA	7308-536	V47
GB	1441-094	X27
IL	--43-575	X51
CH	-589-719	Y34
CA	1017-671	Y40
CS	7307-612	B12
IT	1048-154	D05

41664 V ABD

BE	807-713	V23
NL	7314-868	V26
DE	2260-184	V29
FR	2209-774	V40
J4	9099-181	V47
ZA	7309-320	W02
GB	1407-720	W39
HU	T012-242	X43
IL	--43-582	Y07
CA	1017-692	Y40
SU	526-294	A14
US	4081-329	A20
CH	606-066	A48
IT	1048-144	D05
DS	2260-184	D05

44011-V ADF

DE	2359-865	V24
BE	-808-088	V24
NL	7316-072	V25
FR	2208-687	V40
ZA	7309-015	V47
US	3883-901	W22
J5	0047-492	W25
GB	1444-817	X32
CH	-587-659	Y27
CA	1023-493	A03
IT	1048-160	D05

44078-V D

FR	2199-639	V24+
IT	1048-403	D05

47158-V DE

BE	-808-596	V26
DE	2364-114	V27
NL	7317-593	V28
FR	2211-210	V42
ZA	7309-654	W02
AT	7310-783	X07
DK	7504-905	X11
US	3950-127	X17
AT	7503-874	X46
GB	1458-829	X51
US	4021-486	Y19
CH	-591-241	Y41
SE	7705-870	Y43
CA	1034-145	A29
CA	1034-046	A29
DS	2364-114	B26
NL	-161-668	B44
IT	1048-294	D05

47570-V AD

DE	2361-658	V26
NL	7317-072	V27
BE	-808-665	V29
FR	2210-354	V41
J4	9094-869	V46
PT	--61-045	W33
ZA	7309-466	W35
US	3914-441	W44
AT	7310-398	X36
GB	1456-207	X48
CA	1026-616	A10
IT	1048-418	D05

51345-V D

NL	7217-641	V28
DE	2363-258	V30
BE	-808-980	V34
FR	2212-100	V43
J4	9094-861	V46
ZA	7309-641	W02
DD	-109-800	W07
PT	--61-104	W25
IT	1048-419	D05

52001-V AD

BE	-808-785	V29
J4	9094-827	V46
ZA	7309-529	W02
GB	1407-258	W39
US	B425-285	X17
IL	--43-848	X32
US	4014-676	Y14
PT	--61-103	W04+
DE	2364-882	W28
NL	7400-109	W30
SE	7317-471	W34
DK	7307-044	W40+
AT	7400-404	X15
FR	2323-639	Y24+
CA	1016-866	Y38
CH	-596-096	A12
IT	1048-163	D05

65701-V D

NL	7402-658	V37
DE	2409-354	V38
SE	7402-629	V44
FR	2218-821	V51+
J4	9133-552	W08
CH	-571-827	X12
US	3963-837	X26
GB	1451-740	X41
IL	--44-302	Y07
CA	1010-713	Y22
IT	1048-266	D05

70536-V DE

NL	7403-252	V40
DE	2413-138	V41
SE	7403-721	V46
FR	2222-030	W03
J4	9134-876	W09
ZA	7401-509	W14
GB	1447-730	X35
IT	1048-273	D05

W

01993-W BDE

BE	-816-691	W02
NL	7407-302	W02
DE	2331-821	W05
SE	7407-194	W07
FR	2233-998	W14
J5	0035-347	W22
GB	1427-479	X11
US	3987-189	X44
CH	-598-819	A24
IT	1048-178	D05

07439-W CDG

BE	-817-530	W05
NL	7409-404	W05
DE	2433-410	W06
NO	7402-521	W10
SE	7409-065	W10
DK	7403-694	W16
FR	2236-846	W17
J5	0031-036	W21
US	3923-870	W51
GB	1455-043	X46
AT	7405-700	Y27
SE	7703-863	Y37
CA	1046-935	B06
CA	1047-046	B06
IL	--45-148	B34
NO	7903-304	B51
IT	1048-180	D05

09101-W AD

BE	-817-763	W06
NL	7409-745	W06
SE	7409-409	W11
NO	7402-607	W11
DE	2336-561	W12
DK	7403-827	W16
FR	2237-584	W18
FI	7402-187	W22
J5	0054-648	W28
DD	-113-238	W28
DE	2365-770	X43
US	4001-442	Y03
DS	2336-561	Y05
GB	1482-152	Y32
CS	7405-099	A13
CH	-606-248	A48
AT	7405-933	A48
CA	1048-335	B09
IT	1048-184	D05

16975-W BDE

NL	7311-307	W10
SE	7311-198	W15
FR	2245-299	W27
GB	1411-664	W44+
CH	-571-830	X12
IT	1048-135	D05+

21361-W D

DE	2444-301	W13
BE	-820-074	W14
NL	7412-175	W14
FR	2243-649	W25
DK	7404-882	W26
GB	1470-060	Y15
IT	1048-200	D05

32880-W BDE

DE	2452-285	W20
BE	-821-825	W21
NL	7414-280	W21
SE	7413-807	W26
NO	7403-957	W27
J5	0071-642	W32
DK	7405-736	W32
FR	2249-872	W34
ZA	7407-077	X03
US	3933-781	X05
BR	7409-198	X22
GB	1464-140	Y06
GB	1464-139	Y06
HU	T013-004	Y14
CA	1020-159	Y46
SU	-544-367	A04
SE	7710-696	A08
IT	1025-399	A42
CH	-605-678	A48
DS	2452-285	C01
J8	0026-133	C32
NO	8003-386	D05

36172-W BD

DE	2438-317	W22+
NL	7410-714	W23+
J5	0077-570	W34+
FR	2251-274	W36+
US	3934-048	X05
US	3971-857	X32
GB	1468-071	Y12+
CA	1028-198	A14
CA	1051-714	B17
IT	1048-187	D05+

38027-W BCD

DE	2455-884	W23+
BE	-822-616	W24+
NL	7415-432	W24+
SE	7414-706	W29+
NO	7404-222	W30+
DK	7406-113	W35+
FR	2252-100	W37+
J5	0089-392	W46
J5	0083-383	W51
J5	0083-385	W51
J5	0083-384	W51
ZA	7407-513	X13
J5	1023-286	X15
GB	1449-420	X38+
HU	T012-237	X43+
US	4007-177	Y07+
CH	-611-906	B29+
J7	9017-755	B30
CA	1060-432	B35+
J7	9042-999	C03
DS	2455-884	D05+

46121-W DJ

BE	-825-786	W28
DE	2507-209	W36
NL	7501-891	W37
FR	2261-796	W50
J5	0115-174	A01
J7	7047-741	A01
GB	1503-741	A11
IT	1031-825	B38
DS	2507-209	D05

47636-W D

US	3892-869	W28
BE	-827-211	W42
NL	7503-631	W42
DE	2513-363	W42
SE	7503-575	W47
NO	7501-064	W48
DK	7501-308	X02
FI	7500-926	X04
BR	7501-797	X04
FR	2274-224	X14
ZA	7501-927	X17
FI	7602-396	X52
FI	7602-395	X52
CH	-590-613	Y36
GB	1495-342	Y50
DK	7704-012	A01
CH	-596-772	A15
CH	-596-771	A15
DE	2560-018	A49
AT	7502-319	B09
CA	1052-619	B20
CA	1055-770	B25
CA	1055-771	B25
AT	7800-005	B35
IT	1034-629	C01
NL	8005-087	D05

69103-W BCDE

DE	2415-981	W42
J5	0132-126	W51
FR	2266-520	X04
GB	1452-374	X42+
CH	-604-730	A41+
IT	1048-169	D05+

74374-W BD

DE	2514-984	W45
BE	-828-040	W45
NL	7504-508	W45
SE	7504-413	W50
J5	0145-589	X02
FR	2267-779	X06
US	3944-562	X13
ZA	7501-855	X17
GB	1458-340	X51
CA	1034-524	A30
CH	-620-243	C50
SU	-736-875	D05

78391-W ADF

US	3916-900	W47
BE	-834-770	X20
DE	2547-078	X20
NL	7512-511	X21
FR	2289-130	X36
GB	1493-476	Y48
CA	1033-904	A29
IT	1048-324	D05

81692-W D

DS	2452-039	W50
NL	7512-265	X21
FR	2289-107	X36
AT	7508-307	X50
CH	-600-745	A28
IT	1048-021	D05

82924-W AD

US	3921-638	W50
BE	-835-097	X11
NL	7512-577	X21
DE	2547-451	X21
SE	7510-640	X25
DK	7504-567	X32
BR	7507-056	X34
FR	2289-132	X36
PT	--64-434	X41
ZA	7506-014	Y19
CH	-593-030	A01
GB	1527-735	A41
IT	1047-721	D01
CA	1091-853	D05

X

00117-X DE

BE	-832-200	X01+
NL	7509-704	X10+
DE	2535-800	X11+
J5	1043-717	X22+
GB	1523-644	A36+
CA	1067-092	B50
CA	1068-293	C02
CA	1068-294	C02
CA	1068-295	C02
FR	2438-033	C32+
FR	2453-146	D05+
FR	2453-147	D05+

05602-X D

BE	-832-801	X04
DE	2538-114	X13
FR	2283-216	X24
IT	1048-287	D05

16860-X ABCD

BE	-834-607	X10+
NL	7512-252	X19+
DE	2546-716	X19+
SE	7511-612	X23+
NO	7503-492	X24+
DK	7504-656	X29+
J5	1065-704	X30+
FR	2288-143	X33+
PT	--61-571	X41+
ZA	7506-573	X44
BR	7506-830	X44+
US	4032-702	Y27+
GB	1499-989	A05+
AT	7507-933	A22+
CH	-606-074	A48+
CA	1045-130	B03+
IT	1048-249	D05+

18856-X ADF

BE	-834-927	X11
DE	2548-200	X21
J5	1072-621	X32
FR	2289-611	X36
GB	1474-780	Y21
DS	2548-200	B13
IT	1048-015	D05

23809-X ADJ

NL	7510-160	X13
DE	2539-408	X15
J5	1029-383	X17
DK	7503-969	X23
FR	2283-921	X25
DS	2539-408	Y25
US	4046-843	Y37
GB	1493-654	Y48
IT	1048-308	D05

24437-X DE

BE	-833-546	X14
NL	7510-991	X15
DE	2444-780	X16+
FR	2235-339	X27
GB	1520-127	A31
IT	1048-492	D05

26476-X DE

BE	-833-837	X15
NL	7510-251	X16
SE	7507-897	X20
NO	7502-749	X21
J5	1061-174	X28
FR	2286-111	X28+
DE	2536-506	X35
AT	7506-595	Y05
GB	1511-876	A21
US	4104-162	A47+
CH	-609-654	B16
IT	1047-959	D01
J8	1000-114	D05

26477-X D

BE	-834-932	X15
US	3951-150	X18
NL	7512-578	X21
DE	2547-444	X21
SE	7510-639	X25
DK	7504-566	X32
BR	7507-055	X34
FR	2289-131	X36
PT	--64-419	X41
US	3987-794	X45
US	3990-450	X47
US	3995-638	X51
US	3995-637	X51
US	4014-338	Y14
ZA	7506-013	Y19
CH	-595-788	A12
GB	1526-223	A39
DK	7805-036	C27
AT	7508-186	C44
IT	1047-720	D01
CA	1091-854	D05

28270-X D

US	3947-605	X15
DE	2547-098	X20
J5	1067-792	X30
FR	2289-609	X36
GB	1513-836	A24
CA	1076-410	C20
IT	1048-032	D05

28684 X ADE

DE	2544-019	X16
BE	-834-119	X17
NL	7511-456	X17
J5	1064-080	X29
FR	2286-910	X29
BR	7506-413	X41
ZA	7506-266	X44
GB	1528-757	A42
J5	3143-611	B05
CA	1058-046	B32
DS	2544-019	C24
IT	1048-220	D05

28685-X ADE

DE	2544-035	X16
BE	-834-118	X17
NL	7511-455	X17
J5	1064-081	X29
BR	7506-414	X41
ZA	7506-267	X44
GB	1533-415	A47
J5	3143-612	B05
US	4148-603	B17
CA	1052-658	B20
FR	2401-261	B22
FR	2401-262	B22
IT	1048-219	D05

28698-X DE

DE	2544-242	X16
BE	-834-117	X17
NL	7511-454	X17
J5	1064-079	X29
FR	2286-909	X29
BR	7506-412	X41
ZA	7506-268	X44
CA	1033-637	A28
GB	1529-454	A42
DS	2544-242	C11
IT	1048-218	D05

30515-X DE

DE	2545-190	X17
BE	-834-341	X18
NL	7511-460	X18
DK	7504-083	X29
ZA	7506-407	X44
AT	7408-150	Y05
GB	1499-347	A05
CA	1065-763	B47
IT	1048-064	D05

31842-X ADE

BE	-834-342	X18+
SE	7510-900	X22+
NO	7503-299	X23+
FI	7502-723	X26+
DK	7504-377	X28+
FR	2287-504	X30+
DD	-120-419	X32+
J5	1091-898	X39+
PT	--64-344	X41+
BR	7506-416	X42+
DK	7603-378	X48+
NL	7511-466	X18
AT	7408-151	X28
ZA	7506-406	X44
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DS	2527-388	A20
GB	1529-713	A43+
AT	7600-172	B26
US	4169-075	B40+
CA	1062-984	B41+
CA	1071-058	C09
CH	-620-175	C50+
IT	1048-248	D05+

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GB	1519-957	A31
IT	1048-478	D05

31861-X D

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CA	1063-028	B41
IT	1048-236	D05

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DK	7504-728	X29
FI	7502-934	X31
FR	2288-473	X34
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IT	1048-074	D05

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34243-X AD

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IT	1048-064	D05

34323-X D

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DK	7504-696	X31
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34358-X DE

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34375-X DM

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IT	1048-335	D05

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IT	10	

36304 X

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SE	75	
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US	417	
CA	107	
IT	104	

36385 X

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SE	7907	
CA	1092	

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46946-X A

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71243-X D

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73140-X A

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DFG
27 X42
08 X52
79 Y02
58 Y05
60 Y11
41 A03
46 A08
11 D05

DK
48 X43
05 D05

D
17 X49+
05 Y10+
53 Y10+
14 Y19
27 A23+
46 A48+
17 C33+
74 D05+

D
14 X50
284 Y48
458 Y49+
765 Y51+
174 A09+
833 A10+
863 A11+
056 A15
015 B04
965 C50+
043 D05+

AD
795 X51+
899 X51+
176 Y03+
499 Y05+
541 Y08+
154 Y19
861 Y37+
338 A40+
875 B26+
742 C17+
507 C31+
508 C32+
219 C45+
766 D03+
219 D05+

BD
804 X52
800 X52
087 Y01
979 Y04
513 Y04
519 Y08
546 Y09
251 Y13
790 Y17
735 A47
201 B13
064 B34
145 B51
843 C01
804 C15
039 D05

D
547 Y02
961 Y18
194 Y28
220 Y28
768 Y38
891 Y41
009 Y49
598 A05
141 A38
370 A45
738 B23
356 D05

DH
061 Y03
15 D05

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J8 1000-081 D05

08443-Y ADJM
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J8 1000-113 D05

10365-Y DEM
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J8 1000-118 D05

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17131-Y D
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J8 1000-107 D05

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18410-Y ADE
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ZA 7605-316 Y38
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21622-Y DM
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J5 5152-148 D05

27585-Y ADEF
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CH -617-809 D04
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DE 2650-967 Y23
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DK 7605-086 Y32
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FI 7603-232 Y34
BR 7607-607 Y43
ZA 7606-806 Y46
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SE 7612-686 Y40
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DK 7700-169 Y43
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62218-Y D
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DS 2700-542 D05+

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81075-Y BD
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DS 2736-838 B37+
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86111-A DE
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NL 7806-535 B02+
J5 4007-407 B09+
BR 7803-841 B15+
US 4110-263 B16
PT --68-184 B32+
US 4181-634 C03+
ZA 7803-476 C13
CA 1091-157 D04+
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B

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GB 1573-386 C34+
CA 1091-861 D05+

15534-B ADEG
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J5 4011-297 B10
J8 1000-040 D05

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DK 7803-776 B15+
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FI 7802-607 B22+
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36024-B DE
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40498 B DEHM
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US 4157-243 B25+
CA 1092-089 D05+

40908-B D
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NL 7712-814 B23
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DK 7902-083 D05+

41307-B D
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49447-B D
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GB 2010-658 B27+
FR 2413-040 B41+
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DS 2856-195 C47+
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SE 7903-346 B49
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GB 2052-241 D05+

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SE 7904-652 D05+

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82563-B D
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GB 2022-082 B50+
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FR 2426-033 C09+
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FI 7901-637 C09
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DE 2919-513 B49
BR 7902-971 B50
J5 4151-129 C02
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FR 2425-861 C09
ZA 7902-334 D05

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J5 5000-388 C07+
US 4245-109 D05+

C

03790-C CDEF
DE 2925-290 C03+
NL 7904-792 C03+
GB 2025-951 C05+
FR 2429-781 C15+
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03798-C CDEF
DE 2925-337 C03
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13358-C D
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14763-C D
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GB 2051-754 D04
NL 8001-624 D05
DE 2926-955 D05

33155-C D
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FR 2439-749 C32
FR 2453-113 D05+
J5 5141-186 C51+
ZA 7906-493 D05+

43734-C D
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BE -881-548 C34
EP --22-587 D05

46674-C ACD
EP --12-500 C27
J5 5084-327 C32
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DK 7905-401 C33
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FI 7903-970 C40
ZA 7906-886 D05

46771-C BCD
EP --12-718 C27+
PT --70-547 C28+
DK 7905-157 C31+
J5 5085-524 C33+
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ZA 7906-647 D05+

47522-C D
NL 7909-090 C27+
DE 2950-710 C29+
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GB 2043-045 C40+
J5 5152-591 D05

49144-C ADE
NL 7909-159 C28+
BE -880-800 C29+
DE 2951-212 C29+
J5 5089-400 C34+
GB 2041-026 C36+
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SE 7910-531 C41+
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DE 2856-086 C29+
J5 5090-596 C34
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35737-C BD
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41961-C ADF
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BR 7907-884 C37+
J5 5107-565 C40+
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BR 7907-883 C37
J5 5112-358 C41
ZA 7906-531 D05

43680-C ADJ
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DK 7905-051 C30+
BR 7907-834 C30+
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FI 7903-895 C34
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DK 7905-040 C29+
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ZA 7906-418 D05+

53349-C DE
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53808-C ADE
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PT --70-659 C32+
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J5 5092-707 C35+
FI 8000-034 C40+
DK 8000-046 C46+
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J5 5094-932 C35
BR 8000-088 C45
ZA 8000-119 D05

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BD
61 C38
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58 C48
11 C51
48 D01
88 D02
13 D05

CD
86 C38+
74 C38+
84 C42
65 C49+
68 D05+

D
721 C38
926 C45
082 C46
684 C46
709 C49
042 C51
101 C51
773 C51
885 D03
997 D05

CDEH
183 C39
611 C48
194 C51
365 D01
457 D01
707 D02
430 D02
841 D02
350 D05

CDEH
184 C39
642 C48
193 C51
364 D01
708 D02
431 D02
824 D02
339 D02
349 D05

D
239 C39
489 C45
517 C50
659 C51
198 D04
609 D05
541 D05

CD
637 C39
803 C36
885 C43
250 D05

BD
325 C40
697 C48
215 C49
664 D01
731 D02
338 D03
898 D05

D
456 C40
587 C49
389 C50
227 C51
392 D01
075 D04
232 D04
816 D05

D
440 C40
652 C46
112 C46
717 D03
078 D05+

CD
007 C40+
242 D05+

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DK 8001-199 C46
BR 8001-712 C49
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GB 2052-705 D05

71654-C D
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US 4244-460 D05+

73458-C BD
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DE 3012-303 C43
SE 8002-475 C47
DK 8001-425 C48
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DK 8001-387 C48
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FR 2452-930 D05

73469-C BD
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NL 8001-902 C43
DE 3012-693 C43
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GB 2049-703 D01
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73479-C BD
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DE 3013-246 C43
GB 2045-231 C44+
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DK 8001-400 C48
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FI 8000-881 D01
FR 2452-931 D05

73486-C D
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NL 8003-157 C51+
DE 3020-170 C51+
NO 8001-589 D04
GB 2051-771 D04+
SE 8004-064 D05+

73516-C D
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DE 3021-582 D01
NL 8003-314 D02
BR 8003-533 D05

73577-C BDE
DD -143-269 C42
SE 7903-190 C48+
CS 7902-755 D01+
FI 7901-238 D05+

73795-C D
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GB 2049-470 D01
FR 2453-112 D05

73856-C D
DE 3011-691 C42+
FR 2452-305 D04+
J5 5149-606 D05+

73897-C ADJ
DE 3013-171 C42+
J5 5132-602 C48
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GB 2048-718 C51+
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75321-C DE
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DE 3012-922 C44
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SE 8002-599 C48
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75322-C DJ
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FR 2452-963 D05

75366-C D
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NL 8003-366 D03+
EP --21-247 D04+
DS 2924-283 D05

75455-C D
DE 2913-287 C43
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75587-C DE
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BR 8001-951 C50
FR 2453-217 D05

76316-C ABD
NL 8001-223 C43+
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GB 2045-618 C45+
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76328-C CD
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GB 2046-570 C47
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PT --71-133 C47
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SE 8003-020 C50
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SE 8002-213 C48
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77301-C BDE
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GB 2049-670 D01
FR 2453-216 D05

77304-C D
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77308-C D
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FR 2452-875 D05

77368-C ABD
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BR 8002-025 C50
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77561-C DE
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79381-C BD
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PT --71-111 C47+
FI 8001-215 D05+

80122-C BD
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SE 8002-827 C49+
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80714-C DEJ
BE -883-046 C46
NL 8001-823 C47
SE 8003-310 C51
DK 8001-799 D01
GB 2049-951 D01
J5 5151-255 D05

80739-C D
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80741-C AD
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NL 8003-714 D05+
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80976-C CD
DE 2915-762 C46+
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DK 8001-660 C50
FI 8001-230 D05

81117-C CD
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84716-C DE
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FI 8001-365 D05

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84773-C ADJ
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86324-C D
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86631-C BD
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86664-C ADE
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GB 2052-536 D05

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86829-C D
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04199-D ADF
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NL 7905-147 D05

05695-D ADE
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NL 8003-835 D05+

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BE -884-224 D05

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GB 1583-649 D05

06355-D DHJ
GB 1583-730 D05

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GB 2052-265 D05+

06363-D DHJ
GB 2052-285 D05+

06385-D D
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GB 2052-469 D05

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GB 2052-542 D05

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GB 2052-551 D05

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GB 2052-793 D05+

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SU -736-932 D05+

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81 D05

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93 D02

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BDE
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* 273 D D17

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= 523 02643D D18E24
= 533 73516C D13T05Q7+R1
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DK 8002
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DS 2204
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DS 2221
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